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Exploring Cypriot Fathers' Attitudes, Beliefs and Level of Involvement Around the Decision-Making Process for Childbirth Method

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Abstract

Objective: The present study aimed to investigate levels of paternal involvement during the decision-making process for childbirth method in the Cypriot population.

Design: The research project employed a quantitative-based cross-sectional design.

Participants: Men with at least one child under the age of five, involved in a committed relationship with the mother of their child were eligible to take part in the study. A total of 108 participants took part in the study.

Measurements: A battery of self-report questionnaires addressing knowledge on childbirth methods, communication and power in the relationship, and beliefs about parenting were used.

Findings: Results suggest that a constructive communication style between partners can determine the fathers' level of involvement during decision-making for childbirth method. Also, fathers' partners with positive beliefs towards a specific type of childbirth method increases the likelihood of selecting that type of delivery method. Fathers' beliefs about a specific childbirth delivery option does not influence the actual decision made.

Key conclusions: The current study highlights the need for further exploration by employing qualitative research designs of possible indirect factors that could have a significant impact on prenatal paternal involvement. Future studies could investigate the reasons why fathers take a passive stance during the decision-making process by taking into account societal and cultural perspectives of the father's role during pregnancy, as well as exploring healthcare system approaches to childbirth.

Implications for practice: It is recommended that health care professionals encourage fathers to be more actively involved in the decision-making process whilst exploring the couples' beliefs and influences (especially from family members) about choosing a specific childbirth method.

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1. Introduction

Caesarean sections as choice of birth delivery are increasing globally with rates almost doubling from 12 to 21 percent between 2000 and 2015 (Kingdon et al., 2018). According to the third European Perinatal Health Report (2018) Cyprus has the highest rates of caesarean deliveries in Europe with 56.9% of live and still births in 2015 (more than double the European average of 27%) of which only 16.4% were emergency caesareans. The remaining were due to maternal requests or failure in the onset of labour to progress. This is of great concern as the World Health Organisation (WHO) states that there is no medical justification for any region to have a caesarean rate greater than 10-15% (WHO, 2015). Even though caesarean delivery can be a lifesaving procedure for high-risk women and infants, the current rates suggest that caesareans are carried out when not medically necessary (Dejoy, 2011) which can place healthy women and babies at risk of harm (Kingdon et al., 2018). Several studies suggest that caesareans are associated with adverse long-term childhood outcomes including obesity and asthma as well as several pregnancy risks such as organ injury, infection, stillbirth, uterine rupture and placenta praevia (Dejoy, 2011; Keag et al., 2018; World Health Organisation, 2015). Caesarean delivery has also been associated with future infertility (Keag et al., 2018; Kjerulff et al., 2013; World Health Organisation, 2015) and higher rates of post-partum depression in comparison to vaginal delivery (Sadat et al., 2014).

In light of the detrimental consequences women and children are faced with after a caesarean, a plethora of research has been conducted to explore the reasons women are increasingly choosing caesareans over vaginal delivery as a preferred method of birth. Fear has been identified as one of the most influential psychological factors underlying elective caesareans (Nieminen et al., 2009; Pakenham et al., 2006; Wiklund et al., 2008). Women who fear the process of childbirth (also known as tokophobia) and associated complications (Loke et al., 2015; Nieminen et al., 2009), who fear experiencing pain (Loke et al., 2015), and who fear for the health of the foetus (Matinnia et al., 2015) were most likely to undergo a caesarean. Furthermore, Loke et al. (2015) found that advice from health professionals to undergo a caesarean was used as a cue for action. In fact, a recent study carried out in Cyprus found that high rates of caesareans could be accounted for by the lack of informed choices made by childbearing women due to the limited amount of awareness of evidence-based information on different childbirth methods (Hadjigeorgiou et al., 2018).

It is evident however that there is a substantial gap in the literature, since there are only a few studies investigating and exploring the decision-making process couples follow when choosing

childbirth delivery options, especially in countries where elective caesareans are significantly high. More specifically, there is a lack of knowledge in regards to the role the father may play in this process. According to Martínez-Mollá et al. (2015) shared decision-making between couples allows for an exploration of more options leading to better choices as each partner offers their own perspective. In fact, findings from a Malawian study showed that partner decision-making led to better obstetric choices, outcomes and maternity care when compared to independent decisions being made during pregnancy (Rao et al., 2016). Therefore, it would be worthwhile investigating whether the father's level of involvement in decision-making determines a specific choice of childbirth method. Additionally, research has shown that couples in healthy relationships who have a good communication pattern experience less anxiety during pregnancy and receive higher quality care during this period (Malary et al., 2015). Complimenting these findings, several researchers demonstrated that a good relationship between partners plays a significant role as to whether the father will be involved during their partner's pregnancy (Alio et al., 2013; Xue et al., 2018). Consequently, it is possible that the level of paternal involvement during the decision-making process around childbirth methods and the choices made is indirectly affected by the quality of the relationship between the expectant couple. Therefore, exploring fathers' perspectives on childbirth methods as well as other possible mediating factors is important in order to determine the degree of his involvement and whether his decisional influence is constraining or supporting the choices being made, which will ultimately affect his own and his partner's childbirth experience and outcomes.

Across western countries, childbirth has become a couple-centered event as fathers are becoming more involved during their partners' pregnancies in comparison to previous times (Dejoy, 2011). Partners have been shown to be influential in a number of pregnancy and childbirth areas including pain relief in labour, method of infant feeding, birth place, and antenatal screening (Bedwell et al., 2011). It is therefore conceivable that fathers may also be influential in choices regarding the method of birth delivery. In fact, there is some evidence that men want to be involved in decision-making and are also influential in the process (Alio et al., 2013; Sapkota et al., 2012). For example, Johansson et al. (2012) found that fathers who experienced a caesarean or had a negative previous birth experience expressed a preference for a caesarean. Similarly, in another study, the caesarean procedure was considered by fathers to be "safe and routine," offering a sense of safety, certainty and control (Robson et al., 2015, p. 260). These findings mirror a recent study on Swedish fathers' perceptions on caesareans that concluded that this procedure was the preferable method of birth due to their own fears and

concerns of the uncertainty of vaginal birth (Johansson et al., 2014). The researchers claim that the participating fathers not only exhibited a lack of understanding of the detrimental consequences of caesarean birth but also demonstrated their overwhelming trust in the medical environment, which dominated their views regarding decisions made during pregnancy (Bedwell et al., 2011; Johansson et al., 2014). Furthermore, Johansson et al. (2014) argue that perceptions of childbirth have changed from being a biological and social experience to a medical and potentially dangerous event that is associated with multiple risks. This change in childbirth perception seems to have caused a shift in the balance of power away from the expectant parents and towards the health care professional. In a qualitative study investigating how couples make decisions around childbirth matters, it was found that not all decisions about childbirth are negotiated, as some couples do not believe they are decisions to be made by them but rather by healthcare professionals (Dejoy, 2011).

There is limited amount of research investigating the level of paternal involvement in the decision-making process regarding method of childbirth. This is especially the case in the context of caesareans, which have evidently become a global phenomenon and a matter of concern for the World Health Organization (WHO, 2015). Taking into account the dramatic rise of caesarean rates in Cyprus and the detrimental consequences associated with the procedure to both the mother and the child, the current research aimed to explore the role Cypriot fathers adopt in the decisions made for childbirth delivery methods. There are only two studies that have examined the role of the male partner in childbirth decision-making; however, they are both of a qualitative nature (Dejoy, 2011; Johansson et al., 2014). No studies have been conducted in the field using quantitative measures. Furthermore, even though the above literature review suggests that a lack of adequate information on caesareans and the associated potential risks may play a role in the stance expectant parents take during the decision-making process, no study to date has investigated this. There has not been an attempt to understand other factors that may influence the decision-making process such as communication patterns and decisional power between partners, the influence of family members and the physicians' role that could ultimately affect choice of childbirth method. Therefore, the current study aimed to explore Cypriot fathers' beliefs, attitudes and level of involvement during the decision-making process around childbirth, in the hope of gaining a deeper understanding of the degree of their decisional influence as well as their general level of involvement during pregnancy.

The objectives of the study were to investigate whether paternal beliefs, knowledge on delivery options, physician's influence, perception of significant others' preferences, decisional power and communication style with partner influence:

- level of perceived paternal involvement in the decision-making process regarding method of childbirth
- the actual decision made around method of childbirth.

2. Method

2.1 Design

The research project employed a quantitative-based cross-sectional design.

2.2 Participants

In order to take part, participants had to a) be Cypriot, b) have at least one child under the age of five and c) be involved in a committed relationship for at least two years with the mother of their child. Participants separated or divorced with the mother of their child were excluded from the study. Participants under the age of 18 were also excluded.

2.2.1 Participant Characteristics

A total of 136 participants agreed to take part in the study, however only 108 participants fully completed the questionnaires. Participants were between the ages of 23 to 50 (mean = 35.2, SD= 4.9), 87 had a college or university level of education and 21 were high school graduates. Most participants were from Nicosia (n=48), followed by some from Larnaca (n=25), Limassol (n=20) and Pafos (n=15). The majority of participants were middle class (85%) and married (93%). Only 39 fathers had more than one child and 69 were first time fathers.

2.3 Procedure

Questionnaires were made available on an electronic platform where potential participants were able to access and complete them. An information form and online consent procedure were embedded at the beginning of the online questionnaire. Participants who did not indicate consent could not access the questionnaire. Additionally, all information collected were anonymized; personal details could not be matched, identified or tracked back to the individual participants. The research project was reviewed and granted approval by the Social Sciences Ethics Review Board at the University of Nicosia (SSERB 0062), and the Cyprus National Bioethics Committee (ΕΕΒΚ ΕΠ 2020.01.14).

An invitation to participate in the study was posted on social media and shared to various parent-run groups, blogs and websites. Medical clinics, midwives and organisations supporting parents with an online presence were approached and asked to share the questionnaires on their platforms.

2.4 Measures

A battery of self-report questionnaires that took approximately 20 minutes to complete were employed as instruments of data collection. The Demographic Information Questionnaire was created by the researcher for the purpose of the current study. Apart from questions on background demographic characteristics, the questionnaire also consisted of 13 questions on the sufficiency of information about childbirth methods (e.g. How sufficient was the information to make an informed decision regarding caesareans?) and recommendations made by the obstetrician (e.g. What method of childbirth did the gynecologist recommend?). Additionally, 15 questions were included intending to investigate paternal level of involvement during pregnancy (e.g. Were you present for your partner's routine prenatal check- ups?) and were guided and informed by studies from Expoo (2016), and Redshaw and Henderson (2013).

Knowledge on childbirth methods was assessed using 14 statements requiring 'Yes', 'No' or 'Don't know' responses responses (e.g Vaginal delivery increases the risk of bleeding from vagina). The statements were based on a questionnaire designed by Varghese, et al. (2016) for the purpose of their study investigating whether knowledge of birth method influences women's preferences for a specific type of birth delivery.

The Overall Relationship Power Inventory (Farrell et al., 2015) is a 20-item, self-report measure assessing the power of the participant and their partner within their relationship (measures power dyadically) (e.g. I have more power than my partner when deciding about issues in our relationship). Individuals responded to each item on a seven-point Likert scale ranging from 'not at all' (1) to 'always' (7). The authors provided evidence for behavioural predictive validity, interitem reliability (a = .85) and a good test-retest reliability over a three month period (Farrell et al., 2015).

The Communication Patterns Questionnaire-Short Form (Christensen & Heavey, 1990) is an 11 item self-assessment of spouses' perceptions of interactions. The items are divided into subscales representing two underlying factors: Demand/withdraw patterns (e.g. I nag and demand while my partner withdraws, becomes silent, or refuses to discuss the matter further) and Positive interaction patterns (e.g. Both my partner and I try to discuss the problem). It has

been shown to have adequate concurrent validity and high internal consistency (α = .91) (Futris et al., 2010).

In order to measure participants' beliefs about parenting and child development, the Early Parenting Attitudes Questionnaire (Hembacher & Frank, 2016) was employed. It uses three subscales: Rules and Respect (e.g. It is very important that children learn to respect adults, such as parents and teachers), Affection and Attachment (e.g. Children who receive too much attention from their parents become spoiled), and Early Learning (e.g. Reading books to children is not helpful if they have not yet learned to speak). Individuals rated 24 statements (8 per subscale, 12 reverse coded) on a Likert scale ranging from 'do not agree' (0) to 'strongly agree' (6). The measure has satisfactory subscale reliabilities of alpha = .69 (rules and respect), .75 (affection and attachment) and .76 (early learning), respectively (Hembacher & Frank, 2016).

Lastly, participants completed the Childbirth Delivery Options Questionnaire (Tai, 2013), a 52-item self-administered measure based on the Theory of Planned Behaviour assessing three components: intention regarding delivery options (e.g. I planned for our baby to be delivered by the vaginal birth method) attitudes towards delivery options (e.g. It was important to me that my partner delivered our baby by the scheduled caesarean section) and perceptions of significant others' feelings about delivery options (e.g. Delivering our baby by the vaginal birth method was a meaningful experience for my partner). The measure has high internal consistency and reliability (α = .80) (Tai, 2013).

2.5 Data analysis

Statistical analyses were conducted using the software 'Statistical Package for Social Sciences' 25.0 (SPSS). To answer the study's first research question, Pearson correlations were conducted to measure the strength of association between paternal attitudes on childbirth, physician's influence, significant others' preferences of childbirth method, general parenting attitudes, decisional power between partners, knowledge on childbirth, communication style between partners and perceived paternal involvement regarding decision-making. Then, a standard multiple linear regression was conducted to determine whether the aforementioned independent variables predict paternal involvement in the decision-making process regarding childbirth delivery.

Lastly, in order to answer the second research question, a logistic regression was used to determine whether paternal attitudes on childbirth, physician's influence, significant others' preferences of childbirth method, general parenting attitudes, decisional power between

partners, knowledge on childbirth, communication style between partners and paternal involvement during pregnancy predict a specific childbirth method.

A power analysis for a multiple regression with six predictors was conducted in G*Power to determine a sufficient sample size using an alpha of 0.05, a power of 0.80, and a medium effect size ($f^2 = 0.15$) (Faul et al., 2013). Based on the aforementioned assumptions, the desired sample size for the current study was a minimum of 98 participants.

3. Results

3.1 Pregnancy and Birth variables

Over half of the participants reported that their partner's pregnancy was planned (70%). Fifty six percent of all the participants did not attend any prenatal classes with their partner, 18% stated that 'classes were not necessary' and 14% had to work; however, the majority of men (72%) attended almost all prenatal checkups with their partner. Furthermore, 49 participants reported their partners had a caesarean section and 59 claimed their partners had vaginal birth. Almost all were present during childbirth (92%) and over half took paternity leave (59%). The majority chose private clinics for the birth of their child (78%). In regards to obstetrician recommendations, the fathers' responses showed that 51% were recommended vaginal birth by the obstetrician, 26% were recommended caesareans and 23% received no recommendations. Approximately 45% of participants stated that they were highly influenced by the obstetrician's opinion to have a caesarean and nearly 30% to have vaginal birth. In addition to this, participants reported that 32% of the obstetricians asked what childbirth method they preferred.

Twenty two percent of all participants reported that the obstetrician informed them about caesareans; moreover, 42% of all fathers reported that information on caesareans was sufficient and 21% that it was not enough. In regards to vaginal birth, 56% of all participants believed information on this type of method was sufficient and 42% strongly agreed that the obstetrician informed them about vaginal birth. Only around 40% of participants scored 'average' and 'above average' on the childbirth method knowledge test, while the rest scored below average.

3.2 Main Analyses

A Bonferroni correction was applied to assert significance due to the increased risk of a type 1 error after performing multiple analyses. The following variables met the threshold of significance of $p = .00019$. Fathers' positive beliefs about vaginal birth were significantly related with positive beliefs held by their partners ($r = .69, p < .001$) and mother-in-laws ($r = .55, p < .001$) as suggested by the large effect sizes found. Similarly, a medium effect size was found in regards

to fathers' positive beliefs for this type of birth method in relation to their own mothers (r = .42, p < .001) (see Table 1). Additionally, there was a positive correlation between their partners' positive beliefs about vaginal birth and their partners' mother's beliefs (r =.44, p <.001) and mothers-in-laws' beliefs (r =.30, p =.002). A medium effect size was found between fathers' positive beliefs about vaginal birth (r =.48, p <.001), their partners holding positive beliefs about vaginal birth (r =.36, p <.001) and their intention to have their child born via this method.

Furthermore, a constructive communication style between fathers and their partners was significantly negatively related with the partners adopting a demanding communication style (r =-.52, p <.001) and the fathers adopting a demanding communication style (r =-.41, p <.001) as suggested by the large effect sizes found. Additionally, fathers with a demanding communication style with their partners did not agree with an 'affection and attachment' style of parenting (r =.26, p <.05). Fathers who also reported that they had more process power (i.e. more control over raising issues and framing discussions) in comparison to their partners also perceived themselves to have more outcome power (i.e. more control over final decisions) (r =.47, p <.001).

Results of a multiple linear regression indicated that general parenting attitudes, significant others' preferences of childbirth method, communication style and decisional power between partners were not statistically significant in predicting perceived paternal involvement regarding child birth method decision-making (F (13, 79) = 1.23, p =.27), with only 17% of the variance in the outcome being explained by the predictors (R^2 = *.17,* adjusted R^2 = .03). The individual predictors were examined further and indicated that a constructive communication style between the father and his partner (Beta=.362, t (92) =2.67, p <.05) significantly predicted perceived paternal involvement during decision-making (See Table 2).

A logistic regression was performed to ascertain the effects of paternal attitudes on childbirth, physician's influence, significant others' preferences of childbirth method, general parenting attitudes, decisional power between partners, knowledge on childbirth, communication style between partners and paternal involvement during pregnancy on the likelihood that a specific childbirth method is chosen. The logistic regression model was statistically significant, $x^2(16)$ = 51.4, p <.001. The model explained 56.9% of the variance in childbirth method and correctly classified 78% of cases. Partners (of the fathers) with positive beliefs towards vaginal birth increased the likelihood of the couple selecting vaginal birth as a method of childbirth by 23.6% (see Table 3).

Table 1. Results of Correlation Analysis

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Fathers' Beliefs	--	*.69***	*.55***	*.48***	*.42***	--	--	--	--	--	--	--	--	--	--	--
2. Partners' Beliefs	*.69***	--	*.46***	*.36***	*.31***	--	--	--	--	--	--	--	--	--	--	--
3. MILs' Beliefs	*.55***	*.43***	--	--	*.71***	--	--	--	--	--	--	--	--	--	--	--
4. Intention for VB	*.48***	*.35***	--	--	--	*.24**	--	--	--	--	*.22**	--	--	--	--	--
5. Mothers' Beliefs	*.42***	*.31***	*.71***	--	--	--	--	--	--	--	--	--	--	--	--	--
6. Affection & Attach.	--	--	--	--	--	--	*.44***	*.26***	*.26***	--	--	*-.25***	*-.20**	--	--	*-.32***
7. Early Learning	--	--	--	--	--	*.44***	--	*.37***	*.23**	--	--	--	--	--	--	--
8. Rules & Respect	--	--	--	--	--	*.26***	*.37***	--	--	--	--	--	--	--	--	--
9. Constr. Commu.	--	--	--	--	--	*.26***	*.23***	--	--	--	--	--	--	*.27***	*.52***	*-.41***
10. Doctor Influence	--	--	--	--	--	--	--	--	--	--	*.22**	--	--	--	--	--
11. CB Knowledge	--	--	--	*.22**	--	--	--	--	--	*.22**	--	--	--	*.20**	--	--
12. Process Power	--	--	--	--	--	*-.25***	--	--	--	--	--	--	*.47***	--	*-.23**	*.28***
13. Outcome Power	--	--	--	--	--	*-.20**	--	--	--	--	--	*.47***	--	--	*-.28***	--
14. Paternal Involv.	--	--	--	--	--	--	--	--	*.27***	--	*.20**	--	--	--	--	--
15. Self-Withdraws	--	--	--	--	--	--	--	--	*.52***	--	--	*-.23**	*-.28***	--	--	*.52***
16. Self-Demands	--	--	--	--	--	*-.32***	--	--	*-.41***	--	--	*.28**	--	--	*.52***	--

*p<.05. **p<.01.

Table 2. Results of Multiple Regression Analysis on Paternal Involvement During Decision-Making

Independent Variable	B	*T*	95% CI		*P*
			LL	*UL*	
Intention Vaginal Birth	-.095	-.735	-.351	.162	.404
Fathers' Beliefs Vaginal Birth	.070	.616	-.157	.297	.539
Partners' Beliefs Vaginal Birth	-.067	-.55	−.312	.177	.584
Mother-in-Laws' Beliefs Vaginal Birth	−.069	-.419	−.396	.258	.676
Mothers' Beliefs Vaginal Birth	.153	1.13	−.115	.420	.259
Constructive communication	.362	2.66	.092	.632	.009
Partner-demanding	-.038	-.292	-.295	.219	.771
Self- demanding	.186	1.23	-.113	.486	.219
Process Power	-.022	-.215	-.227	.183	.830
Outcome Power	.083	1.33	-.041	.207	.185
Rules and Respect	-.084	-.811	-.291	.122	.420
Early Learning	-.080	-.230	-.276	.214	.819
Affection and Attachment	.070	.699	-.129	.269	.487

Note. Total *N* = 93. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

Table 3. Results of Logistic Regression Analysis on Childbirth Methods

Independent Variable	B (SE)	Lower	Odds Ratio	Upper
Constant	-12.8			
Partners' Beliefs Vaginal Birth	.21	1.101	1.24	1.50
Mothers' Beliefs Vaginal Birth	-.35	.82	.96	1.13
MILs' Beliefs Vaginal Birth	-.15	.71	.86	1.04
Fathers' Beliefs Vaginal Birth	.82	.93	1.08	1.26
Intention for Vaginal Birth	.15	.98	1.16	1.36
Childbirth Methods Knowledge	.19	.92	1.21	1.59
Doctor Influence	-.31	.48	.74	1.14
Level of Involvement	-.01	.87	.99	1.14
Constructive Communication	.07	.89	1.07	1.28
Partner demanding	.09	.95	1.10	1.27
Self-demanding	-.09	.78	.91	1.07
Outcome Power	.05	.98	1.05	1.13
Process Power	.04	.93	1.04	1.17
Rules and Respect	.06	.93	1.06	1.20
Affection & Attachment	.09	.98	1.20	1.24
Early learning	-.14	.74	.87	1.01

4. Discussion

Drawing from the lack of research in the field of decision-making in regards to childbirth methods, the present study explored levels of paternal involvement during this process. The findings suggest that a constructive communication style between partners can determine the fathers' level of involvement during decision-making. These results are consistent with previous research indicating that a strong relationship between partners, and more specifically, the quality of communication between the two, plays a significant role as to whether the father will be generally involved during their partner's pregnancy (Alio et al., 2013; Xue et al., 2018). This is

reasonable, as prior to birth, the father's involvement and interaction with the baby is through the mother; as a consequence, the relationship he has with her determines the level of this involvement. Therefore, the current study illuminates the need for effective interventions in the context of prenatal mental health programs that improve communication skills between partners in order to facilitate father involvement during pregnancy and shared decision-making in regards to childbirth method. These findings also highlight that correlation patterns point to the possibility of indirect factors effecting the degree of paternal involvement and in turn the choices made regarding childbirth method. In fact the regression model suggests very little of the variance in paternal involvement is explained by the target factors examined in the study.

Furthermore, only one factor, namely the fathers' partners' beliefs towards a specific type of childbirth method increased the likelihood of selecting that type of delivery method. The fathers' beliefs about a specific childbirth delivery option did not influence the actual decision made. One could argue that these findings resonate with the patriarchal Cypriot culture where the responsibility of caring for children is still mostly placed on women (Plantenga et al., 2008; Tsangari & Stephanidi, 2012). This responsibility could begin as early as decisions made regarding method of birth. Even though over the years there has been a shift from the male breadwinner to dual earners in Cyprus, childrearing is still considered a woman's job (Tsangari & Stephanidi, 2012). Cypriot men have become more involved fathers in the recent decades in comparison to previous times; however mothers are presumed as the primary caregivers and the fathers mere 'helpers' rather than parenthood being considered a shared responsibility. The perpetuation of Cypriot societal gender roles is further highlighted by the fact that the Cypriot government has only recently (in 2017) legalized paternal leave which is only two weeks of duration and can be transferred to mothers (Rentzou et al., 2019).

Additionally, due to this cultural gender-based norm, female members of the couple's family (such as mothers, mother-in-laws, sisters etc.) tend to be overly involved in childrearing. In fact, the current study indicated a strong relationship between the father's partner, mother and mother-in-law's beliefs and preferences in regards to childbirth methods and their own beliefs and preferences. These results potentially highlight further the father's 'passive' role in the decision-making process and possibly the involvement and influence of other members of his own and his partner's family. It is important to mention that Cyprus has a collectivistic culture and therefore society places special importance on close familial relationships. In Cyprus, it is common for newlywed couples to live near or in the homes of their in-laws until they can afford to move into a house of their own (Evason, 2018). The couples' mothers usually prepare meals,

help with household chores as well as with childrearing. As such, Cypriot parents hold a lot of influence over their children's decisions well into adulthood and generally throughout their lives. Therefore, in regards to decision-making during pregnancy, the degree of involvement of female family members could potentially undervalue the father's significance and lead to ambiguity regarding his role, compounding the issue of passivity. Future research could carry out cross-cultural studies to explore whether there are different patterns between individualistic and collectivistic cultures regarding paternal involvement during pregnancy.

Even though the majority of fathers in the current study reported being highly involved in the decision-making process during their partners' pregnancies, these reports contradict the above-mentioned findings. One rationale for the reported high level of involvement could be due to social desirability, meaning that fathers overrepresented their level of involvement (Rentzou et al., 2019). The current study's participants also reported being 'highly influenced' by their partner's obstetrician in regards to recommendations made for a caesarean (in comparison to vaginal birth); however, this influence was not significant enough to predict the childbirth method selected. It is likely that the fathers' partners who were found to be responsible in deciding the type of childbirth method, were the ones to be significantly influenced by their obstetricians. According to Deave and Johnson (2008) healthcare providers tend to direct information about pregnancy and childbirth to mothers and fail to actively involve men. Future research could therefore focus on including the level of influence of the medical practitioner from the expectant father's perspective and compare it to that of the expectant mothers. It would also be worth investigating whether the doctor's gender plays a role in regards to whether information is relayed to both parents or only to the mother.

It is important to mention that nearly half of the current participants' partners underwent a caesarean section, which is arguably an extremely high percentage, and the majority had given birth in private clinics. Even though the majority of fathers reported a medical reason for the caesarean, taking into account the high rates of non-medically indicated caesareans in Cyprus, this does not rule out the possibility that the caesareans reported in the current study were potentially portrayed by the obstetricians as medically indicated when in fact they were not. According to a study conducted by the Cyprus Ministry of Health (2012), 6 in 10 births were carried out by caesarean in private clinics in comparison to the public sector which recorded 3 caesareans in every 10 births. There is an evident public-private maternity health care disparity in caesareans which has also been reported in other studies conducted in countries where caesarean rates are also significantly high (Lee et al., 2021; Howell et al., 2009). One of the main reasons explaining this gap could be that private providers have incentives in creating a culture

where childbirth is medicalised resulting in encouraging caesareans when not medically indicated and readily accepting maternal requests for this type of childbirth method. It is known that perinatal care in private clinics in Cyprus is obstetrician-led and there are some doctors known amongst the public for only performing caesareans (Hadjigeorgiou et al., 2018). The matter of unethical behavior on behalf of some obstetricians has been a central theme in much of the Cypriot media investigating this issue, however it appears that not enough information has been exposed to the public. The arguments put forward were that several doctors encourage caesareans for convenience and financial incentives since additional cases of surgery are directly linked to the doctors' income (a caesarean costs more than vaginal birth) (Hadjigeorgiou et al., 2018). This is in contrast to maternity units in public hospitals which are managed by midwives and who are usually paid by a fixed amount of salary. Therefore, another justification for the fathers' lack of influence in the decision-making process could be that the fathers didn't feel they could participate in deciding with their partner on the type of delivery method if they were informed by the doctor that a caesarean was medically necessary.

Additionally, in the current study only a small number of fathers reported having been informed about caesareans during prenatal appointments, which is alarming given that a very high number of caesareans were reported in this sample. These results may also further illuminate the issue of the father's 'passivity' in decision-making, as it is highly likely that fathers are unaware of the detrimental consequences associated with the surgical procedure, indicating an overwhelming trust in the medical environment as has been demonstrated in previous research (Bedwell et al., 2011; Johansson et al., 2014).

5. Limitations

There are several limitations to this study that are worth mentioning. Firstly, since there are no widely accepted reliable and valid psychometric tools extensively used to measure paternal involvement, the author constructed a paternal involvement questionnaire guided and informed by studies from Expoo (2016) and Redshaw and Henderson (2013) for the purpose of the current research. Therefore, its validity has not been established, raising a methodological concern. Additionally, the current study relied solely on self-report questionnaires which increased the possibility of the data having been affected by an external bias caused by social desirability.

Secondly, the data was analyzed exclusively using quantitative methods. If a mixed methods design was employed by including interviews to collect data, possible new variables or

dimensions of paternal beliefs about childbirth methods and decision-making could have been revealed to provide a deeper understanding of prenatal paternal involvement.

Thirdly, one could argue that the study's sample has limited generalizability as the majority of participants were middle class, had a higher level of education and used private healthcare services. What is more, previous research studies have demonstrated that higher education levels and socioeconomic background predicts higher levels of paternal involvement (Jung Yeh, 2014; Planalp & Braungart-Rieker, 2016). This could therefore offer an explanation for the lack of variances in levels of paternal involvement reported in the study as the majority of participants reported high levels of involvement.

Additionally, the study only investigated fathers' perceptions of their role during the prenatal period even though this is a shared experience with their partners. Excluding mothers' perceptions on their partners' involvement restricted gaining a well-rounded understanding of the level of paternal involvement during decision-making around childbirth method.

Lastly, the research findings are based on retrospective accounts of the fathers' experiences and as such, the meaning associated with their experiences may have been reconstructed differently since the time of their partners' pregnancies.

6. Future directions

The current study highlights the need for extensive research in the field of decision-making in regards to childbirth methods from both the female and male perspective, specifically in countries such as Cyprus where elective caesarean rates are dangerously high. It also reiterates the necessity for the development of valid and reliable psychometric tools measuring paternal involvement in order to overcome the major methodological concern in this field of research. It is recommended that measures include questions on communication patterns between partners as an indicator of the level of paternal involvement during pregnancy. Also, prenatal mental health programs supporting expectant parents in improving communication skills between them should be put in place to facilitate shared decision-making during pregnancy.

What is more, since empirical findings demonstrate that Cypriot fathers are not involved in the actual decision made for type of childbirth method it would be worth investigating the indirect factors that influence the degree of paternal involvement such as societal cultural aspects and healthcare system approaches outlined in this article. For example, future studies could employ a qualitative or mixed methods design to explore father's perceptions of support in pregnancy and mother's perceptions of the father's role during this time within the cultural context of the

country under investigation. It would also be helpful to explore the interactions between couples and health practitioners when discussions around childbirth methods occur. This could provide an explanation for the high numbers of caesareans in Cyprus as well as a clearer picture of the physician's influence pertaining to specific childbirth methods.

Furthermore, the research study's results confirm the need for prenatal education programs that provide information to expectant parents on childbirth methods in order to assist them in making informed decisions. It is also recommended that health care professionals encourage fathers to be more actively involved in the decision-making process whilst exploring the couples' beliefs and influences (especially from family members) about choosing a specific childbirth method. They could also challenge misconceptions that may have been transferred to them by their families and society. Lastly, since it has been shown that constructive communication determines paternal involvement during pregnancy, prenatal mental health programs supporting expectant parents could include workshops dedicated to improving communication skills between partners in order to facilitate shared decision-making throughout the perinatal period.

7. Conclusion

This research takes important steps in advancing the study of decision-making in regards to childbirth methods, as it has received relatively little attention in spite of the concerning rise in caesarean surgeries across Europe and especially in Cyprus. Shared decision-making between couples allows for an exploration of more options, leading to better choices, as each partner offers their own perspective. However, the current study demonstrated that Cypriot fathers are passive during this process and it highlights the need for further exploration, by employing qualitative research designs of possible indirect factors that could have a significant impact on prenatal paternal involvement. The empirical findings suggest investigating societal cultural perspectives of the father's role during pregnancy as well as exploring healthcare system approaches to childbirth, more specifically the obstetricians' influence in encouraging non-medically indicated caesareans, which could potentially interfere with the father's involvement in decision-making.

Ethical Approval: The research project was reviewed and granted approval by the Social Sciences Ethics Review Board of the University of Nicosia, Cyprus (reference approval number: SSERB 0062) and the Cyprus National Bioethics Committee (ΕΕΒΚ ΕΠ 2020.01.14).

Informed consent: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data that support the findings of this study are available from the corresponding author, [NA], upon reasonable request.

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Conflict of Interest Statement

The authors declare that the research was conducted in the absence of any potential conflict of interest.

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