



First-time fathers' coping strategies at elective cesarean delivery: A quantitative study

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ABSTRACT

Background: Considerable studies have been undertaken to assess fathers' feelings and experiences during labor and delivery of their partner, however, investigation describing first-time fathers' coping strategies at elective cesarean delivery remains under explored.

Aim: To assess and determine the Coping Strategies of first-time fathers at elective cesarean delivery, by looking at both first-time and second time fathers, separately.

Study design: A quantitative design was utilized in this investigation.

Subjects: A total of 52 fathers, of whom 28 first-time fathers, whose partner had planned elective cesarean section, and 54 fathers, of whom 25 first-time fathers, whose partner had scheduled induction of labor at term. **Outcome measures:** The Coping Inventory for Stressful Situations (CISS; Endler & Parker, 1990) was the main tool used to explore by Task-, Emotion- and Avoidance-oriented coping subscales, the feelings and experiences of the expectant fathers relative to the labor and delivery of their partners.

Results: Findings indicated that Avoidance-oriented coping values were significantly higher in first-time fathers at elective cesarean section compared to those at in first-time fathers at scheduled induced vaginal delivery (50.93 ± 12.80 vs 40.71 ± 9.38 , $p < 0.001$), presenting with the highest percentile (82^o centile). In addition, the Avoidance-oriented coping subscale significantly correlated with the subscales assessing Avoidance through Social interaction ($\rho = 0.90$, $p < 0.001$) and Avoidance based on distraction ($\rho = 0.63$, $p < 0.001$).

Conclusion: Findings revealed that first-time fathers at elective cesarean section presented significantly higher Avoidance-oriented coping strategies, through Social interaction and based on distraction, in comparison to first-time fathers whose partner had scheduled induction of labor at term.

1. Introduction

During the last decades there was an expansion of the fathers' attendance at the delivery, mainly in Western industrial countries [1,2]. Childbirth has been described as one of the most important life experiences that a man will encounter, one of the most joyous and exciting moments in his life, yet it can be also difficult and stressful [3], due to the uncertainty about the well-being of his partner and any complications that might occur to the mother or the baby [2]. Others reported that men feel uncertain because of the demands on them to be an active birth coach, with the feeling that they are not sufficiently prepared, lacking of support and instruction during childbirth [4].

In this context, expectant fathers who are having their first child, with a transition in family roles and responsibility, may feel alienated, as they do not know what to expect, what role it is they can play and

how to deal with their own feelings and fear, excitement and anxiety [5].

Research has also examined how expectant individuals try to cope with potentially anxiety-inducing situations in a healthy context [6,7].

Nevertheless, although the body of the evidence regarding fathers' experiences and feelings about delivery is growing over the world, investigation describing coping strategies at elective cesarean delivery from the perspective of first-time father is until now lacking [8]. This seems relevant, considering that with the sharp increase in cesarean childbirth worldwide in the last decades [9], mainly due to elective cesarean delivery, there is growing concern on paternal evoked negative fear and anxiety feelings, possibly enhanced by surgical procedure risk for the mother and the neonate [10]. Nevertheless, literature that explores how the emotional experience of attending surgical childbirth may affect the first-time father's relationship with his baby and his

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emotional well-being in the postpartum period is scarce.

Therefore, this investigation employed a quantitative analytical research design to assess and determine first-time fathers' coping feelings assessed with The Coping Inventory for Stressful Situations (CISS; Endler & Parker, 1992) [11] at scheduled elective cesarean delivery of their partner, accounting for the age, educational attainment, occupation, and marital status.

2. Patients and methods

A quantitative design was utilized in this investigation and data were collected over a period of six months from March to September 2019 at the Policlinico Abano Terme in the North Eastern Italy. The sample consisted of men whose partners had scheduled elective cesarean section or planned induction of labor at term. Inclusion criteria were; a) to be at least 18 years old, b) to be first-time or second-time fathers, c) to have the ability to speak and read Italian language, and d) to be willing to participate. In the present study a total of 116 fathers who met the inclusion criteria were asked to participate. Of these, 52 fathers had a partner with a planned elective cesarean section and 28 were first-time fathers. 54 fathers whose partner had a scheduled induction of labor at term were set as control group and, of these, 25 were first-time fathers. All participants completed and returned the questionnaire booklet.

Questionnaires were administered to expectant fathers in a waiting room, prior to partners' admission for either scheduled surgical or vaginal delivery at term. Specifically, in the case of elective cesarean, questionnaires were given after partners were transferred to operating room for delivery at > 39/0 gestational age weeks; in other case, before the administration of the first dose of prostaglandins for labor induction at > 40/0 to < 42/0 gestational age weeks. Precautionary measures had been taken into consideration to safeguard the study respondents' legal rights. Permission to carry out the study was obtained from the Health Ethics Committee of Policlinico Abano Terme. Participants were given the consent form which was read and signed prior to the interview.

The CISS [1] was the main tool used to assess the feelings and experiences of the expectant fathers. The CISS is one such measure that resulted from an extensive evaluation and refinement process. Originally, Endler and Parker (1992) developed the Multidimensional Coping Inventory (MCI); then, based on a series of factor analyses, they further revised this measure and renamed it the CISS (Endler & Parker, 1992). [11] The CISS is a 48-item measure comprised of three scales assessing Task-, Emotion-, and Avoidance-oriented coping, which are three of the most-robust dimensions identified in the general coping literature. The Avoidance scale can be further divided into separate subscales assessing avoidance through Social interaction and avoidance based on distraction. Endler and Parker (1992) reported that the CISS has a stable factor structure, excellent internal consistency, adequate test-retest reliability, and they provided support for its construct validity [11]. Despite the potential value of the CISS for researchers, there is a paucity of studies in which the CISS has been used or evaluated with fathers attending a clinical sample of childbearing women.

Statistical analysis was performed with R software, version 19, using descriptive and inferential statistics. Descriptive statistics included frequencies, percentages, means, and standard deviations. Inferential statistics examined the correlations between selected variables and The Coping Inventory for Stressful Situations global score and subscales (three scales assessing Task-, Emotion-, and Avoidance-oriented coping and the Avoidance scale further divided into separate scales assessing avoidance through Social interaction and avoidance based on Distraction) using Pearson correlation coefficients. Level of statistical significance accepted was $p < 0.05$.

3. Results

All the fathers who completed the CISS questionnaire were living with their partners. Fathers' age ranged from 25 to 46 years (Mean, 36.47 years, $SD \pm 5.23$) in the first-time fathers and from 22 to 48 years (Mean 37.58 years, $SD \pm 5.49$) in the second-time fathers. Of participants, 52 (57%) of first-time fathers and 39 (67%) of second-time fathers attended more than the usual program of 5 classes. The occupation rates of all fathers were 100%. Moreover, 3 (8.82%) of labor induced women delivered by emergency cesarean section.

Findings indicated that overall CISS global scores were comparable among father whose partner had planned elective cesarean section or scheduled induction of labor at term (128.89 ± 20.21 vs 134.61 ± 17.103 , $p = 0.203$). However, Avoidance-oriented coping subscale values were significantly higher in fathers expecting elective cesarean section (45.85 ± 14.35 vs 40.13 ± 9.63 , $p < 0.049$). Relevantly, Avoidance-oriented coping strategies values were significantly higher in first-time fathers compared to first-time fathers expecting a scheduled induced vaginal delivery (50.93 ± 12.80 vs 40.71 ± 9.38 , $p < 0.001$).

Furthermore, analysis revealed that the Avoidance-oriented coping reaches the higher percentile (82° centile) in the first-time fathers whose partner had scheduled elective cesarean delivery, with respect to both overall expectant fathers at the cesarean delivery (70° centile), the first-fathers at scheduled induction of labor (50° centile), and overall expectant fathers at scheduled induction of labor (45° centile) Table 1.

Finally, in the first-time fathers whose partner had scheduled elective cesarean section, the Avoidance-oriented coping subscale was significantly correlated (Pearson's correlation) with the scales assessing Avoidance through Social interaction ($\rho = 0.90$, $p < 0.001$) and Avoidance based on distraction ($\rho = 0.63$, $p < 0.001$).

4. Discussion

Results of this investigation have demonstrated that first-time fathers attending to an elective cesarean section present significantly higher Avoidance-oriented coping in comparison to first-time fathers attending a scheduled induced vaginal delivery at term. Analysis revealed that the Avoidance-oriented coping values reached the higher percentile (82° centile) in the first-time fathers expecting elective cesarean delivery, with respect to both overall first- and second-time expectant fathers at the cesarean delivery (70° centile), first-time fathers at scheduled induction of labor (50° centile), and overall first- and second-time expectant fathers at scheduled induction of labor (45° centile). In the expectant first-time fathers at cesarean delivery, the Avoidance-oriented coping subscale was also significantly correlated with both its subscales assessing Avoidance through Social interaction and Avoidance based on distraction.

Western society expects prospective fathers to attend and assist their partner at the time of childbirth, and many fathers-to-be desire to be present during childbirth [12]. However, based on findings from the reviewed studies, fathers experience a variety of fears related to childbirth. Frequently expressed concerns are fear for the safety of the mother and the child, anxiety and fear from observing their partner in pain, feelings of helplessness, lack of knowledge about the birth process and operative delivery, fear of a partner possibly dying during childbirth and inability to be a good father [12,13]. Greenhalgh et al. [14] by examining the experiences of labor, fathers' coping styles and postpartum experiences, using The Experience of Childbirth questionnaire [15], the Miller Behavioral Style Scale [16], and the Edinburgh Postnatal Depression Scale [17], reported that fathers use blunting (avoidance of the anxiety-producing situation), monitoring (a form of seeking information and responding with action), or a combination of both as coping techniques. It should be noted, however, that the study questionnaires were all designed for use with women, since no equivalent measures have been validated on men.

Table 1

Coping Strategies of the first- and second-time fathers categorized, according to planned elective cesarean delivery or scheduled induced delivery of their partners.

Fathers, n. 52: n. 28, elective cesarean section n. 24, scheduled induced labor	Elective cesarean section		Labor induction		p
	Mean \pm SD	Centile	Mean \pm SD	Centile	
Task-oriented coping					
First- and second-time fathers	57.79 \pm 11.42	58	57.09 \pm 7.18	55	0.24
First-time fathers	59.18 \pm 10.35	61	56.33 \pm 6.68	50	
Emotion-oriented coping					
First- and second-time fathers	37.66 \pm 10.42	45	37.34 \pm 8.89	42	0.54
First-time fathers	37.18 \pm 9.59	39	38.83 \pm 9.83	45	
Avoidance-oriented coping					
First- and second-time fathers	45.85 \pm 14.35	70	40.31 \pm 9.63	45	< 0.002
First-time fathers	50.93 \pm 12.80	82	40.71 \pm 9.38	50	
Avoidance based through Social interaction					
First- and second-time fathers	13.15 \pm 4.32	34	14.62 \pm 9.63	42	0.72
First-time fathers	15 \pm 4.38	50	14.62 \pm 3.20	50	
Avoidance based on distraction					
First- and second-time fathers	15.94 \pm 5.51	34	15.65 \pm 5.35	34	0.68
First-time fathers	16.14 \pm 5.16	34	15.58 \pm 4.75	34	
CISS, total score					
First- and second-time fathers	128.29 \pm 20.21		134.61 \pm 17.10		0.52
First-time fathers	132.55 \pm 18.63		135.9 \pm 18.05		

CISS, The Coping Inventory for Stressful Situations.

p, statistical significance at $p < 0.05$.

In this scenario, the focus on coping strategies of first-time fathers attending at surgical delivery is relatively new. According to these research findings based on CISS, it is worth noting that results clearly show that first-time expectant fathers are not only mere audience at elective cesarean delivery, but they are particularly prone to have mixed coping strategies, Avoidance-oriented coping through further divided Social interaction and based on Distraction subscales. Having this mixed emotion then is only normal to anybody who face a high-risk situation unknown to him and in an operating room, mystifying and frightening to a check first-time father. This calls for a greater challenge for health care providers in providing holistic care not only to women but also to their partner/husband so as to make sure that this transition to fatherhood would be as healthy and positive as possible, regardless of their occupational status and education.

Although data gathered from this investigation are important as it is the first analysis concerning expectant fathers' feelings and coping experiences at elective cesarean delivery, it has some limitations. First, this study was conducted among first-time fathers whose partner had given birth from elective cesarean delivery, excluding multiple fatherhood and independently from the clinical and psychological reasons of elective cesarean request. Second, although the lowest common denominator of this analysis was scheduled at term cesarean or induced delivery, irrespective of other delivery modalities (spontaneous vaginal delivery, indicated or emergency cesarean delivery ...), this may have limited the generalizability of this investigation. Third, we did not verify if paternal presence will help men to gain strength during the delivery, influencing experiences including their coping skills during those situations.

In conclusion, these results may provide new knowledge for maternity staff on Avoidance-oriented coping strategies, felt by the first-time fathers at elective cesarean delivery of their wife/partner. Furthermore, this investigation may also provide important insights for hospital administrators in planning and formulating programs or antenatal classes for fathers in order to increase their knowledge concerning childbirth, reduced their fear, anxiety and nervousness during

surgical delivery, and increase their understanding on the roles that they can play during their partner's surgical childbirth.

CRediT authorship contribution statement

Zanardo Vincenzo: Methodology, Writing - original draft.
Angelini Sara: Formal analysis. **Ajao T. Silvia:** Writing - original draft.
Orietta Cimento: Methodology. **Rita Maione:** Formal analysis.
Giliberti Lara: Methodology. **Giustardi Arturo:** Methodology.
Straface Gianluca: Methodology.

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Declaration of competing interest

The authors disclose any conflict of interest.

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