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ORIGINAL ARTICLE

Women's decision-making autonomy in Dutch maternity care

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Abstract

Background: A positive childbirth experience is an important outcome of maternity care. A significant component of a positive birth experience is the ability to exercise autonomy in decision-making. In this study, we explore women's reports of their autonomy during conversations about their care with maternity care practitioners during pregnancy and childbirth.

Method: Data were obtained from a cross-sectional survey of women living in The Netherlands that asked about their experiences during pregnancy and childbirth, including their role in conversations concerning decisions about their care.

Results: A total of 3494 women were included in this study. Most women scored high on autonomy in decision-making conversations. During the latter stage of pregnancy (32+ weeks) and in childbirth, women reported significantly lower levels of autonomy in their care conversations with obstetricians as compared with midwives. Linear regression analyses showed that women's perception of personal treatment increased women's reported autonomy in their conversations with both midwives and obstetricians. Almost half (49.1%) of the women who had at least one intervention during birth reported pressure to accept or submit to that intervention. This was indicated by 48.3% of women with induced labor, 47.3% who had an instrumental vaginal birth, 45.2% whose labor was augmented, and 41.9% of women who had a cesarean birth.

Conclusions: In general, women's sense of autonomy in decision-making conversations during prenatal care and birth is high, but there is room for improvement, and this appeared most notably in conversations with obstetricians. Women's sense of autonomy can be enhanced with personal treatment, including shared decision-making and the avoidance of pressuring women to accept interventions.

KEYWORDS
autonomy, decision-making, maternity care, pressure

1 | INTRODUCTION

A woman's autonomy in decision-making about her own health and the health of her (unborn) baby is considered an essential part of quality maternity care.[1–3] The World Health Organization's recommendations for respectful maternity care underline the importance of a person's autonomy in making decisions and choices about procedures in the perinatal period, including when complications occur or when medical interventions are necessary.[2,4]

Many women desire autonomy in decision-making during this important period of their lives and wish to take responsibility for their own health and well-being and that of their baby.[5–7] Women who are actively involved in the decision-making process experience a higher sense of control and are more positive about their childbirth experience, regardless of the outcome.[5,8,9] Lack of involvement in the decision-making process may contribute to a negative or even traumatic experience.[10–12] However, not all women want to participate in decision-making to the same degree.[13–15] Some find participation in decision-making a heavy burden as it implies responsibility for the choices and outcomes.[15,16] Women's appreciation of involvement in decision-making depends, in part, on the trust they have in their care practitioner.[17,18]

Shared decision-making is a collaborative process where a clinician works together with a patient to reach a decision about care.[19] Autonomy in decision-making refers to the result and describes a woman's experience of making her final decision free from coercion.[20,21] Women's perceived autonomy is significantly influenced by the nature of her interactions with care practitioners,[22] and relationship building is important for creating a climate that is supportive of autonomy during consultations.[23] Elements of personal treatment include such aspects as open and respectful communication,[22] a trusting relationship, shared decision-making[17,18,23] and individualized information sharing;[23] collectively have been shown to affect women's perceived autonomy during pregnancy and childbirth.

Maternal characteristics may also influence the extent of perceived autonomy. Parity is associated with perceived autonomy.[24] More ambiguous are the influences of race or ethnicity on women's perceived autonomy.[22,24,25.] Two previous studies found no significant relationship between income and perceived autonomy.[20,26] Maternity-care-related factors associated with perceived autonomy also include mode and place of birth and onset of labor (e.g. spontaneous or induced labor, and planned cesarean). Previous studies found no association between prenatal risk factors and perceived autonomy,[22,26] suggesting that personal treatment has a stronger effect than prenatal risk on women's autonomy.[22]

Even though respect for women's autonomy is recommended as a norm in maternity care,[2,26] it has proved difficult to achieve. Several studies report that women frequently experience a lack of control and limited choice or influence in the decision-making process during pregnancy and childbirth.[27,28] In an online campaign, initiated by a Dutch consumer organization, which encouraged women to share negative or traumatic experiences with maternity care in The Netherlands, women frequently described that they perceive pressure to accept certain interventions before or during childbirth.[29]

The organization of maternity care in The Netherlands is quite unique among high-resource nations, as the Dutch system offers women several options for care. For example, home, birth center, and hospital are all options for birth setting.[30] However, to date, very little is known about women's autonomy in their decision-making conversations with Dutch maternity care practitioners, including the factors that contribute to women's positive experience of the decision-making process. In this study, we explore: (a) How women in The Netherlands perceive their decision-making autonomy in conversations about choices in pregnancy and childbirth with their midwife and/or obstetrician, (b) the factors associated with women's perceived autonomy in conversations about care in pregnancy and childbirth, and (c) whether, and if so, to what extent, women feel pressure to agree to the use of interventions.

2 | METHODS

We conducted a cross-sectional survey study of women's experiences during pregnancy, childbirth, and the postpartum period ("StEM"—*St*em en *E*rvaringen van *M*oeders, [Voice and Experiences of Mothers]) in The Netherlands. The survey asked about the preferences and experiences of women who gave birth in The Netherlands between February 2019 and February 2020.

2.1 | Setting and participants

There are three levels of maternity care in The Netherlands: primary, secondary, and tertiary. Primary care is offered to healthy women with uncomplicated pregnancies through registered community midwives. When pathology is suspected or complications occur, women are referred to obstetrician-led care which is offered in secondary and tertiary hospitals. In obstetrician-led care, a woman receives care from a hospital-based midwife or obstetric resident, with an obstetrician having the final responsibility for care.[31]

Women were invited to participate in the StEM study through 83 midwifery practices and nine hospitals across The Netherlands—a ratio that reflects the distribution of practices and hospitals in The Netherlands—and via social media. Women were invited for participation in one of three cohorts: (1) the *early pregnancy cohort* if they were between 12 and 20 weeks pregnant, (2) the *late pregnancy cohort* if they were more than 32 weeks pregnant, and (3) the *childbirth cohort* for those between 2 and 12 months after childbirth. Only women who were 18 years or older and were fluent in the Dutch language were included. We excluded women who experienced a perinatal death or severe neonatal morbidity. Women were able to complete the survey either online, by post, or by means of a telephone interview. If necessary, two reminders were sent: the first after one week and the second after three weeks. Surveys were distributed to 5118 women (2630 in one of the two periods of pregnancy and 2488 during the postpartum period). Before initiating the survey, all respondents signed a written or electronic informed consent form, depending on how they completed the survey. The Human Research Ethics Committee of METC Z, Heerlen (registry number: METCZ20180121) approved the study after review of the research proposal, the information letter for participants, the informed consent form, and the surveys.

2.2 | Instruments

We designed a self-administered questionnaire for each of the three cohorts. The questionnaires included validated instruments to measure women's perceived autonomy and the quality of maternity care, questions about women's demographic characteristics, and, for the childbirth cohort, questions about the outcomes of birth.

The main outcome of interest for this study was women's perceived autonomy in conversations with their midwife and/or obstetrician, as measured with the validated Dutch version of *Mothers Autonomy in Decision-Making (MADM)* scale.[26] The *MADM* scale measures women's perceived autonomy in decision-making as a single construct.[32] This scale consists of seven statements, and answers were scored on a 6-point Likert scale from (1) completely disagree to (6) completely agree. *MADM* scores are the sum of the seven items (range 7-42). Higher scores indicate higher levels of perceived autonomy. Women scored the *MADM* scale separately for conversations with midwives and obstetricians. For women in the two pregnancy cohorts, the *MADM* scale focused on decisions during pregnancy; for women in the childbirth cohort, the scale focused on decisions related to birth.

We also examined whether women felt pressure to choose a specific place of birth or to agree to the use of certain interventions. We asked women: "Did you feel pressure from any health professional to accept [*intervention*]?" Women scored their perceived level of pressure for each intervention on a 6-point Likert scale ranging from (1) completely disagree to (6) completely agree. Women could choose "does not apply" if the intervention did not come up in conversations or during care.

We explored the relationship between women's experienced autonomy and their perception of personal treatment and information provision as measured with the *Pregnancy Childbirth Questionnaire* (PCQ). The PCQ measures the quality of maternity care in general and consists of two scales, a *pregnancy* scale that measures two dimensions: *personal treatment* (11 items) and *educational information* (7 items) and a *childbirth* scale that measures the dimension of *personal treatment* only (7 items).[33] Answers range from (1) totally disagree to (5) totally agree, with higher scores indicating higher quality of care. PCQ scores are summing scores separate for the two dimensions of the pregnancy scale, and the childbirth scale. We also collected data of women's background characteristics, the outcome of birth (e.g. place and mode of birth, referral during childbirth, pharmacologic pain relief, induction, and augmentation of labor).

2.3 | Statistical analyses

Results for categorical variables are presented as frequencies and percentages, and results for continuous variables are reported as means and standard deviations. Linear regression was used to explore factors associated with perceived autonomy in conversations with maternity care practitioners. Due to the way Dutch maternity care is organized, women generally have separate conversations with their midwife and obstetrician about their choices and decisions. Therefore, we stratified two regression analyses by practitioner type to prevent women being listed as two different respondents to the study.

In our linear regression analyses, categorical variables were recoded into dummy variables, and missing values were designated "system missing" and excluded from analysis. We report standardized coefficients in the results to facilitate comparison and the interpretation of effect size for variables expressed in different measurement units.

As a result of an error in the questionnaire design, women in both pregnancy cohorts were given the possibility to answer "not applicable" on three items of the PCQ pregnancy subscale personal treatment, resulting in missing data for 444 respondents. Therefore, we performed sensitivity analyses. We did complete case linear regression analyses, excluding all participants who

answered "not applicable" on the three items, followed by analyses with item mean imputation, in which the missing values were replaced by the mean of the available cases.

P values <.05 were considered statistically significant. The data were analyzed using SPSS Statistics.

3 | RESULTS

In total, 3821 women returned the survey (2091 during pregnancy and 1730 postpartum), resulting in a total response rate of 74.7%. We excluded 327 incomplete surveys from the final analysis. In total, 3494 women were included in the analyses: 1922 (75.7%) during pregnancy and 1572 (63.2%) during childbirth. A flowchart of the responses is available as Figure S1.

Table 1 shows the characteristics of the study population. The last column uses data from the Dutch perinatal registry to offer a comparison of our sample with the characteristics of the population of birthing women in The Netherlands.[34] Compared with all pregnant women in The Netherlands, our sample has slightly more women with a high level of education, more women who gave birth at home, and more women who had spontaneous vaginal childbirth. The distribution of participants who received midwife-led and obstetrician-led care during pregnancy was comparable with the pregnant population in The Netherlands.

3.1 | Perceived autonomy in conversations with maternity care practitioners

We asked whether women had discussed care-related choices and decisions (e.g. screening and treatment options) with a maternity care practitioner (midwife or obstetrician), to guide them to the correct MADM scale. In total, 13.2% ($n = 99$) of the early pregnancy cohort reported that they had not; during late pregnancy that number was 10.2% ($n = 120$), and during childbirth, it was 10.7% ($n = 169$).

Overall, women reported higher levels of autonomy in conversations with midwives than with obstetricians. This difference is especially evident in late pregnancy and during birth (Table 2).

We also asked women in the childbirth cohort whether they felt *pressure* to choose a specific place of birth or to agree to the use of interventions. With regard to place of birth and attendant, a very small number of women who had midwife-led birth experienced pressure to make that choice (6.3% of those with a midwife-led home birth and 1.3% of those with a midwife-led hospital birth), whereas a higher number of women who had an obstetrician-led birth reported pressure to choose that option (19.4%).

In total, 947 women in the childbirth cohort had at least one intervention during childbirth, and in that group, 465 women (49.1%) reported pressure to accept or submit to an intervention. Among the women referred to secondary care during birth, 23.5% felt pressured to agree to the referral. For women whose labor was induced or augmented, more than 45% felt pressured to accept this intervention. Just over 40% (41.9%) of the women who had a cesarean reported pressure to accept the procedure. Nearly half of the participants (47.3%) who had instrumental vaginal childbirth felt pressure to agree to that intervention (Table 3).

3.2 | Factors associated with perceived autonomy in conversations about pregnancy and childbirth

We used linear regression analyses to examine the association between perceived autonomy (as the dependent variable), PCQ, and characteristics of our respondents, analyzing care conversations with midwives and obstetricians separately. The regression coefficients give the effect sizes on the total range of the dependent variables. The ranges are given in the notes of the respective tables.

Table 4 presents the results of the regression analyses. There is a significant positive effect of *personal treatment* and *educational information* on women's perceived autonomy in conversations with *midwives* about pregnancy-related decisions (cohorts 1 and 2). After mean imputation for the missing items in the PCQ, *personal treatment, educational information*, *late phase of pregnancy,* and *being a multiparous woman* were significantly correlated with autonomy in conversations with midwives. In conversations with *obstetricians* about pregnancy-related decisions, we found that only *personal treatment* had a positive effect on perceived autonomy, both before and after mean imputation of missing items of the PCQ.

Table 5 reports the regression analyses for conversations about childbirth. In conversations with *midwives* about birth-related decisions, we found that *personal treatment* and a *home birth* had a positive effect on perceived autonomy. With regard to conversations with *obstetricians*, being a *multiparous woman*, having *pharmacologic pain* relief during birth, and *personal treatment* had a positive effect on women's *perceived autonomy*. A *high level of education* (compared with combined middle and low level of education) negatively affected perceived *autonomy* in conversations with obstetricians.

TABLE 1 Characteristics of study population.

Characteristics	All women during pregnancy ($n = 1992$)		All women during the pp period ($n = 1574$)		Dutch population
	n	%	*n*	%	%
Parity[a]					
Nulliparous	699	36.4	751	47.7	43.0
Multiparous	1223	63.6	823	52.3	57.0
Age[a] (y)					
<20	7	0.4	5	0.3	0.8
20-24	168	8.7	71	4.5	7.9
25-29	647	33.7	490	31.1	29.8
30-34	767	39.9	675	42.9	39.7
35-39	300	15.6	295	18.7	18.5
40-44	33	1.7	38	2.4	3.2
Level of education[b]					
Low	104	5.4	40	2.5	9.9
Middle	724	37.7	526	33.4	35.2
High	1093	56.9	1007	64.0	53.7
Missing	1		1		
Marital status					
Married/living together	1861	96.8	1531	97.3	N/A
Living apart together	11	0.6	7	0.4	N/A
Single	32	1.7	30	1.9	N/A
Unknown	18	0.9	6	0.4	N/A
Ethnicity					
Dutch	1705	88.7	1404	89.2	N/A
Non-Dutch	216	11.2	169	10.7	N/A
Unknown	1	0.1	1	0.1	N/A
Main care practitioner[a]					
Community Midwife	1638	85.2			87.0 at start of antenatal care
Obstetrician	153	8.0			12.5 at start of antenatal care
Mixed care	131	6.8			
Place of birth[a]					
Home birth			444	28.2	12.9
Midwife-led hospital			333	21.2	15.0
Hospital			797	50.6	71.0
Referral during childbirth[a]			497	31.6	55.6
Birth mode[a]					
Spontaneous			1271	80.7	73.7
Assisted vaginal			131	8.3	6.9
Cesarean			172	10.9	14.9
Medical interventions[a]					
Induction of labor			373	23.7	21.6
Augmentation of labor			341	21.7	N/A
Pharmacologic pain relief			469	29.8	42.8

(Continues)

TABLE 1 (Continued)

PCQ	Mean (*SD*)	Mean (*SD*)
Personal treatment	46.6 (5.4)	29.2 (4.6)
Educational information	21.5 (2.9)	

Abbreviation: N/A, not available.

[a]Reference: general Dutch maternity care population: perinatale zorg in Nederland anno 2019, landelijke perinatale cijfers en duiding.[34]

[b]Reference: general Dutch population CBS statline women's level of education between 25 and 45 years.[35]

4 | DISCUSSION

Our study investigated women's perceived autonomy in conversations about their care with midwives and obstetricians and explored the factors associated with their perceptions. In general, women reported high levels of autonomy in conversations with their maternity care practitioners. These results are in line with previous studies that also found high scores for decision-making autonomy during pregnancy or childbirth.[22,26,36] However, our results suggest that women's autonomy was lower during conversations with obstetricians in late pregnancy and during birth compared with conversations with midwives. These results are consistent with a previous Dutch study that showed that women experienced lower levels of autonomy in decision-making conversations when receiving care from an obstetrician.[26] There are several possible explanations for this finding. It could be that hospital policies restrict options for women (e.g. for clinical reasons) or that obstetricians are more likely to provide care during urgent situations. It is well known that an approach of shared decision-making, an important contributor to perceived autonomy, is not easy in urgent circumstances.[16]

Some have suggested that obstetricians have a more paternalistic approach,[9,37] whereas others have found that women experience less continuity of care in obstetrician-led versus midwife-led care,[38] both of which would reduce a woman's sense of autonomy. It is worth noting that our models suggested that educational information significantly contributes to the perceived autonomy in conversations with midwives during pregnancy, whereas this contribution was not found for conversation with obstetricians. This finding mirrors the results of a study in the United States showing that women in midwife-led care experienced ongoing conversations about birth options during pregnancy, whereas women in physician-led care reported that physicians were not forthcoming with information on birth choices.[39]

Our results suggest that personal treatment as measured with the PCQ was the most consistent predictor of reported autonomy across all three cohorts in our study. The importance of a good relationship with maternity-care practitioners is highlighted in many studies,[8,27,40–42] and open and respectful communication between a woman and her care practitioner is an essential ingredient for autonomy in decision-making.[16,22] Several studies have found that factors such as good communication and a relationship with care practitioners strengthened perceived autonomy in decision-making. Some of those studies suggest that these factors are more strongly related to the childbirth experience than personal characteristics, obstetric interventions, and type of birth.[10,27,43] Perhaps, personal treatment by care practitioners overrides the effect of obstetric procedures and mode of birth on women's experienced autonomy. In all our models, personal treatment was a predictor of autonomy, and we found no association between autonomy and obstetric interventions, with the exception of pharmacologic pain relief in care conversations with obstetricians. However, the relationship between pharmacologic pain relief and autonomy in care conversations with obstetricians is not remarkable, as pharmacologic pain relief during childbirth in The Netherlands is only available in obstetrician-led care at the request of the women.

Our results contradict findings from Attanasio and colleagues' study which investigated women's perceptions of involvement and satisfaction with decision-making processes during childbirth.[36] This study found associations between obstetric factors and women's characteristics on autonomy in decision-making.[36] Obstetric interventions such as induction of labor, instrumental vaginal birth, and cesarean birth were associated with lower levels of autonomy in decision-making during childbirth, particularly for women in socially disadvantaged groups. Women with a bachelor's degree or higher experienced higher levels of autonomy in decision-making than women with a high school degree or lower.[36] However, a direct comparison may not be appropriate given the significant differences in characteristics of the study populations, measurement methods, and the cultural contexts of the two studies. Nonetheless, it is important to be aware that low health literacy, which is more common among women with a low level of education and in socially disadvantaged groups, could be an obstacle to shared decision-making.[44] It is essential that care practitioners provide accurate and understandable information during decision-making processes that are tailored to individual needs, circumstances, and capacities.[16]

TABLE 2 Women's autonomy in decision-making conversations about choices concerning pregnancy and birth with midwives and obstetricians (MADM).

	Early pregnancy				Late pregnancy				Childbirth			
	Midwife (627)		Obstetrician (76)		Midwife (1024)		Obstetrician (175)		Midwife (1272)		Obstetrician (509)	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Very low (7-15)	0	0	3	3.9	4	0.4	5	2.9	7	0.6	18	3.5
Low (16-24)	8	1.3	3	3.9	13	1.3	10	5.7	24	1.9	46	9.0
Moderate (25-33)	148	23.6	16	21.1	250	24.4	58	33.1	234	18.4	181	35.6
High (34-42)	471	75.1	54	71.1	757	73.9	102	58.3	1007	79.2	264	51.9
Mean (*SD*)	36.2	*(4.66)*	34.7	*(7.61)*	36.0	*(4.80)*	33.5	*(6.56)*	36.8	*(5.27)*	32.8	*(7.29)*
Median	36		36		36		34		37		34	

TABLE 3 Experience of pressure among the group that had the intervention during birth.

	Completely disagree		Strongly disagree		Somewhat disagree		Somewhat agree		Strongly agree		Completely agree		Do not talk about it		Experience of pressure among the group that had the intervention[a]
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	%
Place of birth															
Midwife-led home birth ($n = 444$)	283	63.7	44	9.9	9	2.0	19	4.3	5	1.1	4	0.9	80	18.0	6.3
Midwife-led hospital birth ($n = 333$)	28	65.1	1	2.3	1	2.3	1	2.3	1	2.3	2	4.7	9	20.9	1.2
Obstetrician-led hospital birth ($n = 797$)	345	43.7	65	8.2	36	4.6	43	5.4	41	5.2	69	8.7	190	24.1	19.4
Intervention															
Referral during birth ($n = 497$)	195	39.2	41	8.2	15	3.0	51	10.3	28	5.6	38	7.6	129	26.0	23.5
Induction of labor ($n = 373$)	98	26.3	43	11.5	19	5.1	68	18.2	61	16.4	51	13.7	33	8.8	48.3
Pharmacologic pain relief ($n = 341$)	211	45.0	59	12.6	30	6.4	54	11.5	22	4.7	18	3.8	75	16.0	20.0
Augmentation of labor ($n = 341$)	98	28.7	35	10.3	19	5.6	67	19.6	47	13.8	40	11.7	35	10.3	45.0
Instrumental vaginal ($n = 131$)	35	26.7	13	9.9	10	7.6	19	14.5	21	16.0	22	16.8	11	8.4	47.3
Cesarean ($n = 172$)	46	26.7	24	14.0	7	4.1	22	12.8	25	14.5	25	14.5	23	13.4	41.9

[a]Percentage of the combined score of somewhat agree, strongly agree, and completely agree.

TABLE 4 Multiple linear regression analysis: Experience of decision-making autonomy in conversations about choices concerning pregnancy.

	Complete case analysis						After mean imputation missing items PCQ					
	Midwife			Obstetrician			Midwife			Obstetrician		
Predictors	Unstandardized, β	Standardized coefficients, β	*P*-value	Unstandardized, β	Standardized coefficients, β	*P*-value	Unstandardized, β	Standardized Coefficients, β	*P*-value	Unstandardized, β	Standardized coefficients, β	*P*-value
Phase of pregnancy (late vs early)	−0.327	−0.032	.19	−1.445	−0.096	.13	−1.445	−0.096	.12	−1.543	−0.103	.08
Parity (multiparous vs primiparous women)	−0.332	−0.033	.17	−0.143	−0.010	.88	−0.143	−0.010	.87	−0.069	−0.005	.93
Level of education (high vs middle and low combined)	0.197	0.020	.41	0.686	0.049	.44	0.686	0.049	.43	0.831	0.060	.32
Ethnicity (Dutch vs Non-Dutch)	−0.619	−0.039	.11	2.016	0.104	.10	2.016	0.104	.09	1.817	0.093	.12
PCQ												
Personal treatment	0.408	0.447	.00	0.366	0.310	.00	0.366	0.310	.00	0.396	0.329	**.00**
Educational information	0.314	0.182		0.136	0.060	.39	0.136	0.060	.39	0.069	0.031	.64
Adjusted R^2	29.2%		.00	11.6%		.00	11.6%		.00	11.9%		.00

Abbreviation: MADM scale scores: Min. Score 7-Max. score 42, range 35. PCQ personal treatment scores: Min. score 21-Max. score 55, range 34. PCQ educational information scores: Min. score 7-Max. score 35, range 28.

TABLE 5 Factors associated with women's reported autonomy in decision-making about birth.

	Midwife ($n = 1272$)			Obstetrician ($n = 509$)		
Predictors	**Unstandardized coefficients**	**Standardized coefficients**	***P*-value**	**Unstandardized coefficients**	**Standardized coefficients**	***P*-value**
Parity (multiparous vs primiparous women)	−0.204	−0.019	.497	1.313	0.090	.043
Level of education (high vs middle and low combined)	−0.477	−0.043	.099	−1.230	−0.082	.048
Ethnicity (Dutch vs non-Dutch)	0.333	0.020	.450	−0.407	−0.018	.663
PCQ Personal treatment	0.427	0.326	.000	0.562	0.373	.000
Place of birth (reference obstetrician-led hospital)				—	—	—
Home birth	1.180	0.102	.016	—	—	—
Midwife-led hospital	0.021	0.002	.963	—	—	—
Referral during childbirth (yes vs no)	−0.035	−0.003	.913	−0.300	−0.018	.668
Birth mode (reference spontaneous)						
Assisted vaginal	−0.325	−0.018	.536	−1.952	−0.077	.077
Cesarean	−0.192	−0.010	.722	0.967	0.058	.189
Medical interventions						
Augmentation of labor (yes vs no)	−0.589	−0.054	.147	−0.026	−0.002	.969
Pharmacologic pain relief (yes vs no)	−0.448	−0.039	.241	1.756	0.121	.007
Adjusted R^2	14.6%		.000	15.2%		.000

Abbreviation: —, Are not included as predictor variable. MADM scale scores midwife: Min. score 7-Max. score 42, range 35. MADM scale scores obstetrician: Min. score 7-Max. score 42, range 35. PCQ personal treatment scores: Min. score 7-Max. score 35, range 28.

Women want to participate in the decision-making process during childbirth, free from pressure, even if there is limited time or an urgent situation.[10,40] In The Netherlands, an accepted quality criterion of maternity care is that a "care provider makes sure that his or her preference is not forced upon the women."[16] However, almost half of the women in our study who had an induction of labor, assisted vaginal childbirth, or a cesarean birth felt some pressure to accept this intervention.

These numbers are somewhat higher than those reported in studies from the United States and Canada.[22,45] Informal coercion such as manipulating the given information or creating fear for the woman's health or the health of her (unborn) child might be used by some care practitioners to urge women to accept medical interventions around childbirth.[46] A Swiss study explored women's experiences of informal coercion during childbirth and reported that instrumental vaginal birth, cesarean birth, and referral during childbirth were all associated with an increased incidence of informal coercion.[46] Trusting and respectful relationships with maternity care practitioners, taking time to briefly explain what is happening, talking with women about their childbirth experiences, and discussing decisions again after birth have been shown to enhance a woman's feeling of involvement, particular after unexpected or urgent situations.[47,48]

5 | STRENGTH AND LIMITATIONS

Our study is the first to take an in-depth look at perceived autonomy in decision-making among pregnant and birthing people in The Netherlands—where the organization of maternity care offers individuals several options for care. Furthermore, we were able to collect information from a large sample of women throughout The Netherlands who received midwife-led and/or obstetrician-led care.

Our study has several limitations. We had little direct control over the inclusion process, resulting in a sample that was not representative for all characteristics of the population of pregnant women in The Netherlands. Like many survey studies, women with a low level of education and women with a non-Dutch background were underrepresented in our study population. We also excluded those without Dutch language proficiency. We found a significant effect of women's level of education on women's perceived autonomy in conversations with obstetricians about birth. It is unclear whether this overrepresentation of more highly educated women and underrepresentation of women with lower levels of education may have contributed to more pronounced differences in perceived autonomy.

Our study population also consists of more women who experienced a physiological childbirth as compared with the larger Dutch population (eg, more home births, less pharmacologic pain relief, and fewer cesarean births). In our results, we found significant positive effects of home birth on women's reported autonomy in care conversations with midwives. There was a similarly positive association between autonomy in care conversations with obstetricians and the use of pharmacologic pain relief. It is possible that the overrepresentation of home births and underrepresentation of individuals who experienced pharmacologic pain relief may have skewed our findings; perhaps, for example, making differences between midwives and obstetricians appear more pronounced.

Our results suggest that nearly half of the women who had at least one intervention during birth reported pressure to accept or submit to an intervention, while at the same time, we found that almost 85% of all women scored moderate-to-high on autonomy in conversations about childbirth-related decisions. This finding may be the result of the fact that the MADM scale we used explores women's autonomy in decision-making conversations but does not sufficiently consider pressure, such as informal coercion, applied by care practitioners in those conversations. Further research could focus on women's autonomy in conversations about pregnancy and childbirth-related decisions together with aspects of informal pressure to better understand and comprehend these decision-making conversations.

5.1 | Conclusions

Our results confirm that women's perceived autonomy in care conversations with midwives and obstetricians is mostly high but also points to areas that require improvement. A substantial group of women reported a lower level of autonomy in care conversations with obstetricians during late pregnancy and childbirth and felt pressure to accept medical interventions during birth. We also found that personal treatment increases women's perceived autonomy, pointing the way for maternity care practitioners to improve their practice and enhance the experience of childbirth for those in their care.

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CONFLICT OF INTEREST

None declared.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICAL APPROVAL

The Human Research Ethics Committee of METC Z, Heerlen (registry number: METCZ20180121) approved the study.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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