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RESEARCH ARTICLE

A Validity and Reliability Study of The Turkish Version of The Mothers' Autonomy in Decision Making Scale

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Abstract
Objective: The focus of the study is women's experiences of autonomy while making decisions about their care during pregnancy, labour and birth. The aim of this study is to adapt the Mothers Autonomy in Decision Making Scale (MADM), developed by Vedam et al. in 2017, into Turkish health care culture.
Methods: The survey, which was created in the Google form, was conducted between May 15th to August 15th 2019 through social media. 344 women participated in the study and 286 women answered the questionnaire in total. The data were evaluated using the SPSS package software. Findings related to construct validity of the scale were made using exploratory factor analysis method.
Results: Reliability of the Turkish form of the scale was performed with Cronbach's Alfa and the internal consistency value of the scale was found to be 0.91. MADM scores were found to be highest for midwives (33.28±10.10) and lowest for family physicians (23.89±11.44). More than half of the midwives who have been cared for have a high autonomy score on the scale of MADM (%54.4).
Conclusion: MADM scale was found to be valid and reliable in Turkey to assess decision-making experiences during maternity care.
Keywords: Decision-making, personal autonomy, midwifery

Karar Vermede Anne Otonomisi: MADM Ölçeği Türkçe Geçerlik ve Güvenirlik Çalışması

Öz
Amaç: Karar Vermede Anne Otonomisi (MADM) ölçeği, kişi odaklı öncelikleri yansıtan ve bir kişinin gebelik, doğum, doğum sonrası bakımı sırasında karar vermeye öncülük etme kabiliyeti ile ilgili bakım sağlayıcılarla olan etkileşimlerini güvenilir bir şekilde değerlendiren bir ölçektir. Bu çalışma ile, Vedam ve arkadaşları tarafından 2017 yılında geliştirilen ölçeğin, Türkçe geçerlik ve güvenirlik çalışması yapılması amaçlanmaktadır.
Gereç ve Yöntem: Google formda oluşturulan anket, 15 Mayıs-15 Ağustos 2019 tarihleri arasında sosyal medya aracılığıyla yapılmıştır. Araştırmaya 344 kadın katıldı ve anketi toplamda 286 kadın yanıtladı. Veriler SPSS paket programı kullanılarak değerlendirildi. Ölçeğin yapı geçerliğine ilişkin bulgular açımlayıcı faktör analizi yöntemi kullanılarak yapılmıştır.
Bulgular: Kadınların, 95'i aile hekimlerinden, 160'ı ebelerden ve 222'si kadın doğum uzmanlarından sağlık hizmeti aldıklarını bildirdi. Kadınların çoğu kadın doğum uzmanlarının bakımını tercih ettiğini belirtti. Ölçeğin Türkçe formunun güvenirliği Cronbach's Alfa ile yapılmış ve ölçeğin iç tutarlılık değeri 0.91 olarak bulunmuştur. MADM puanları ebeler için en yüksek (33,28±10,10), aile hekimleri için en düşük (23,89±11,44) bulunmuştur. Bakım verilen ebelerin yarısından fazlasının MADM ölçeğinde (%54.4) özerklik puanı yüksektir.
Sonuç: Annelik bakımı sırasında karar verme deneyimlerini değerlendirmek için MADM ölçeği Türkiye'de geçerli ve güvenilir bulunmuştur.
Anahtar Kelimeler: Karar verme, kişisel özerklik, ebelik

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INTRODUCTION

Getting health care is a fundamental part of our human rights. According to the World Health Organization guidelines, routine, evidence-based care and treatment should be provided to every woman and newborn before, during and after birth (1).

There are many care providers in pregnancy, delivery and postpartum periods. Close cooperation between different care providers and recognition of each other's competencies and limitations are essential to ensure quality maternity care for all women (2).

After registration of women who find out that they are pregnant by the midwife, they can see the midwives and family physicians throughout their pregnancy and they are referred to obstetricians when necessary. It has been stated that family physicians can play a role in providing general medical care in teams that care for pregnant women (before, during and after delivery) (3).

ICM (International Confederation of Midwifery) evaluated the basic role and general competencies of midwifery profession in four groups: preconceptional period and pregnancy follow-ups, labor and delivery, postpartum mother and newborn care (4). A midwife is expected to provide care, necessary interventions and follow-up at each stage. Looking at the definition of midwifery, we may already see that it covers processes starting from pre-pregnancy in every area where the woman is, women's health, pregnancy, birth and postpartum period. In the standards of maternity care set by ROYAL College, it was emphasized that the first contact point is midwives and the contact information of midwives is easily accessible. Every woman is recommended to receive one-on-one midwifery care. Obstetrician is expected to evaluate women with complex medical conditions and participate in complex deliveries in obstetric units (5).

No matter whom a woman receives care from, she should be at the center about her care at the decision-making stage when she applies to the midwife, family physician or an obstetrician. NICE stated the benefits of making joint decision-making such that the care provider and the recipient realize what is important, people make informed choices, feel supported and empowered, and care or treatment can be adjusted to the needs of the individual (6).

Individual/patient-centered care is becoming more common. Picker Institute's patient-centered care assessment highlights some concepts. In this institute, many concepts such as respect for patient-centered values and preferences, knowledge, communication and education concepts, emotional support and evaluation of care are discussed (7). In its Maternal and Child Health Integrated Program (MCHIP),

USAID examined the status of "respectable maternity care" around the world and concluded that the concepts of safe motherhood should be expanded beyond prevention of morbidity or mortality. Concepts such as women's autonomy, dignity, feelings and choices have been added, including respect for women's fundamental human rights (8). Prominence of these concepts and the fact that women make their own choices, of course, affect their general health status. There is evidence and acknowledgment that patients should participate in their care if improvements are required in the quality of care provided (9). Women's autonomy has a significant impact on health seeking behaviour. A research conducted in Ethiopia reported that one unit increase in women's autonomy scale increased the probability of seeking health services by about 61% (10). Autonomy is considered essential for decision making in a range of healthcare situations, from seeking and using healthcare to choosing from treatment options. Evidence suggests that women in developing or low-income countries often have limited autonomy and limited control over health decisions (11). There is no scale in Turkey that evaluates the decision-making processes of women regarding pregnancy, delivery and postpartum period. In a Scoping Review was stated that more scales and researches as well as clear guidelines and strategies are needed for perinatal care related to the decision-making process (12).

MADM is a scale that reflects individual-focused priorities and reliably evaluates a person's interactions with care providers regarding their ability to lead decision-making during pregnancy, delivery and postpartum care. It was developed by Vedam et al. in 2017 (13). Turkish validity and reliability of the scale, which is also available in Spanish and English, is aimed to be researched.

METHODS

In order to adapt the scale to Turkish, necessary permission was obtained first by contacting Kathrin Stoll, one of the developers of the scale, via e-mail. The scale was translated into Turkish by people who are fluent in both languages. It was evaluated by experts and corrections were made in line with their opinions. It was evaluated in terms of Turkish meaning and grammar by an expert from the Turkish language department. A questionnaire form consisting of personal information and scale questions was created after all these were completed. Ethics committee consent was granted from XXX University Science Ethics Committee.

286 women who had children under the age of five answered the questionnaire online between May15th and June 15th 2019.

MADM scale: Maternal Autonomy in Decision Making Scale (MADM) was developed by women to describe their experience in maternity care. The MADM scale is a reliable and valid tool that rates the level of mediation and autonomy a person experiences when participating in decision-making conversations with the maternity service provider. It consists of 7 items and is a 6-point Likert type scale, rated to be as 1 strongly Disagree, to 6 Strongly Agree. The scale score range is 7-42, and the higher the scores, the more signs of active role taking and leadership are. Scores between 7 and 15 are reported as "Very Low Autonomy", 16-24 as "Low Autonomy", 25-33 as "Moderate Level Autonomy" and 34-42 as "High Autonomy" (13). Tabachnick & Fidell, (1996) reported that having 5 participants for each item in the scale would be sufficient for factor analysis (14).

Statistical Analysis: Gathered data were evaluated using the SPSS package software. Findings regarding the construct validity of the scale were made using the exploratory factor analysis method.

RESULTS

Women are minimum 21 and maximum 45 years old, their mean age is 32.83±4.69, mean number of their living children is 1.71±0.77 and mean age of the youngest child is 2.39±1.64. Of the women, 36.4% reported that they were between the ages of 31-35, more than half of them, 56.3%, had postgraduate education, 57.3% of them worked, 65.7% of them evaluated their socio- economic situation as average and 32.2% reported that they lived in the Marmara region of Turkey (Table 1).

As seen in Figure 1, when asked to list the people who give the most care to women, 38.8% of women stated obstetricians, 25.5% midwives and 23.8% family physicians as first. 95 women stated that they received care from family physicians, 222 from obstetricians and 160 from midwives. It may be concluded that they receive care from more than one person. While 52.1% of the women reported that they did not receive any care from their family physicians, 37.4% reported that they did not receive any care from midwives and 21.4% from obstetricians.

Descriptive Analysis

Table 2 shows the percentages of women's responses to the scale items for all three care providers. While 61.9% of the women reported as “respected my preferences” for the midwives, 54.1% of them reported the same for the obstetricians and 38.9% reported it for the family physicians (Table 2).

Scale score means were calculated according to the care receiving states. As seen in Table 3, scale score mean of women

receiving care from family physicians is 23.89±11.44, of women receiving care from obstetricians is 28.95±9.62, and of women receiving care from midwives is 33.28±10.10.

Table 1. Personal characteristics of women

		Mean+sd	
Maternal age		32.83±4.69	
Number of their living children		1.71±0.77	
Age of the youngest child		2.39±1.64	
		n	%
Age groups	20-25	18	6.3
	26-30	78	27.3
	31-35	104	36.4
	36-40	71	24.8
	41 and over	15	5.2
Educational status	Primary school	5	1.7
	Secondary school	14	4.9
	High school	52	18.2
	University	161	56.3
	Postgraduate	54	18.9
Employment status	Employed	164	57.3
	Unemployed	122	42.7
Socio-economic status	Good	88	30.8
	Average	188	65.7
	Bad	10	3.5
Region of the province lived	Black sea	49	17.1
	Central Anatolia	56	19.6
	Aegean	30	10.4
	Marmara	92	32.2
	Mediterranean	24	8.4
	Eastern Anatolia	16	5.6
	South-eastern Anatolia	19	6.7
Total		286	100

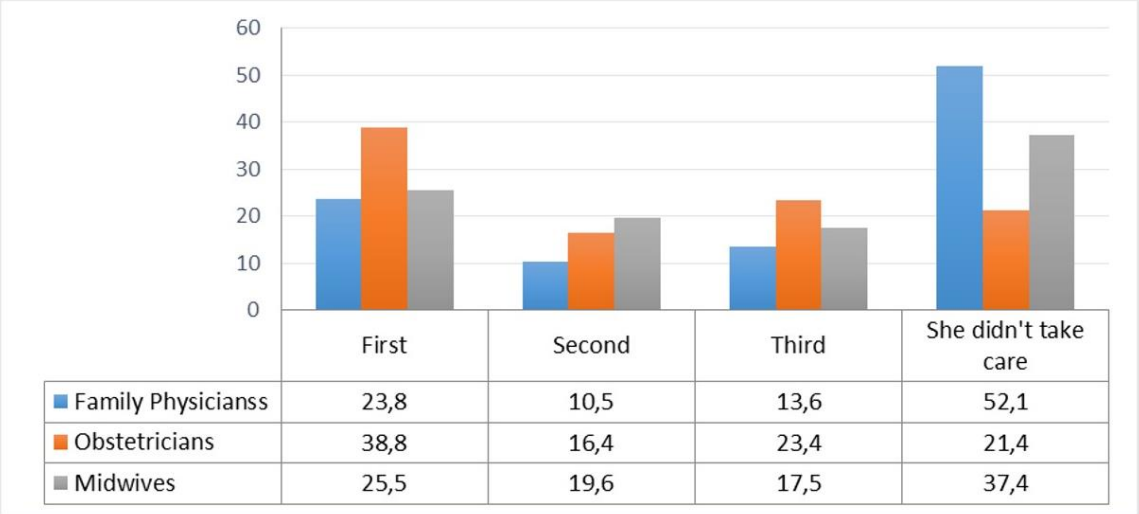

Figure 1. Ranking of caregivers according to women's care-taking status

Table 2. Scale item score percentages of all three caregivers

		Strongly disagree	**Disagree**	**Partially Disagree**	**Partially Agree**	**Agree**	**Strongly agree**
Family Physician (N:95)	Asked how I would like to participate in the decision-making process.	23.2	15.8	20.0	14.7	9.5	16.8
	Said that I have alternative options for my maternity care.	26.3	13.7	23.2	14.7	5.3	16.8
	Explained the advantages / disadvantages of alternative birth care options.	29.5	17.9	13.7	11.6	8.4	18.9
	Helped me understand all the information given to me.	20.0	20.0	13.7	11.6	8.4	26.3
	I have been given enough time to consider my alternative care options.	29.5	22.1	7.4	12.6	8.4	20.0
	I was able to choose the care I think was the best.	21.1	9.5	10.5	10.5	12.6	35.8
	Respected my preferences.	20.0	8.4	8.4	14.7	9.5	38.9
Obstetrician (N=222)	Asked how I would like to participate in the decision-making process.	13.1	5.0	14.4	15.8	14.9	36.9
	Said that I have alternative options for my maternity care.	29.7	8.6	14.9	14	13.1	19.8
	Explained the advantages / disadvantages of alternative birth care options.	20.7	8.6	14.9	10.4	13.5	32
	Helped me understand all the information given to me.	7.7	6.8	10.4	13.1	18.5	43.7
	I have been given enough time to consider my alternative care options.	18.9	6.3	12.6	14.4	13.5	34.2
	I was able to choose the care I think was the best.	12.2	3.2	13.5	12.2	14.4	44.6

	Respected my preferences.	9.5	2.3	9	9	16.2	54.1
Midwife (N:161)	Asked how I would like to participate in the decision-making process.	9.4	8.8	13.8	10.6	14.4	43.1
	Said that I have alternative options for my maternity care.	12.5	6.3	14.4	11.3	13.1	42.5
	Explained the advantages / disadvantages of alternative birth care options.	14.4	7.5	8.8	11.3	12.5	45.6
	Helped me understand all the information given to me.	8.1	4.4	8.1	10.0	16.3	53.1
	I have been given enough time to consider my alternative care options.	10.0	7.5	11.3	14.4	12.5	44.4
	I was able to choose the care I think was the best.	8.1	4.4	8.8	7.5	16.3	55.0
	Respected my preferences.	5.6	3.1	6.9	10.0	12.5	61.9

Table 3. Scale scores according to the care receiving states of women

	Scale Mean	Very Low Patient Autonomy (7-15)		Low Patient Autonomy (16-24)		Moderate Patient Autonomy (25-33)		High Patient Autonomy (34-42)		Total	
		n	%	n	%	n	%	n	%	n	100
Family Physicianss	23.89±11.44	25	26.3	27	28.4	17	17.9	26	27.4	95	100
Obstetricians	28.95±9.62	30	13.6	38	17.2	67	30.1	87	39.1	222	100
Midwives	33.28±10.10	13	8.1	24	15	36	22.5	87	54.4	160	100

Factor Analysis

The Kaiser-Meyer-Olkin (KMO) and Bartlett tests assess the suitability of the scale. These values have been calculated for three different caregivers. Calculation of data on women cared for by the obstetricians resulted as KMO: 0.913, X^2=901.89 and p=0.00; of the one on women cared for by the family physicians resulted as KMO: 0.89, X^2=635.897 and p=0.00; and of the one on women cared for by the midwives resulted as KMO: 0.882, X^2=989.717 and p=0.00. Cronbach's Alpha values are given in Table 4. The sufficiency of Bartlett Test and Cronbach's Alpha value showed that the scale was suitable for factor analysis. The scale consists of a single factor. Table 4 shows the scale items and variance for each caregiver.

Table 4. Variance and scale item scores for each caregiver

	Care Providers		
	Family Physician	Obstetrician	Midwife
%Variance explained by each factor	%75.4	%64.7	%72.1
…… asked how I would like to participate in decision-making processes.	.903	.781	.767
…… said I have alternative options for maternity care.	.886	.758	.834
…… explained the advantages/disadvantages of alternative childbirth care options.	.898	.822	.875
…… helped me understand all the information given to me.	.864	.817	.877
…… I have been given enough time to consider my alternative care options.	.892	.888	.906
I was able to choose the care I think was the best.	.806	.796	.859
…… respected my preferences.	.826	.762	.821
Cronbach's alpha value	0.94	0.90	0.93

DISCUSSION

It may be seen that research on the scale are conducted in various countries. While the cronbach alpha value of the scale developed by Vedam et al. was 0.90 in a research conducted in British Colombia (13), the cronbach alpha value was found to be 0.96 in another research conducted in the Netherlands (15), and similar results were obtained in the research.

An evaluation of the results of three health care providers, reveals that the responses of women for each item are higher in midwives. 54.4% of women who receive care from midwives were found to have high autonomy, 26.3% of the ones who receive care from family physicians to have very low and 28.4% of the ones to have low autonomy. Vedam et al. obtained a similar result in their research in 2019 (16).

CONCLUSION

MADM scale was found to be valid and reliable in Turkey to assess decision-making experiences during maternity care.

Ethical Approval: This study was approved by Amasya University Science Ethics Committee with Date: 21.06.2019 and Decision no: 15386878-044

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