

Midwives' Knowledge Level About Newborn Individualized Development Care and Assessments Program

Ebelerin Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı Hakkında Bilgi Düzeyi

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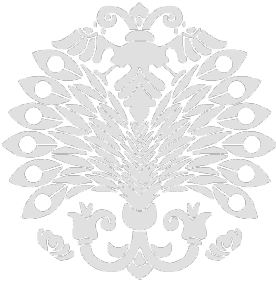


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ABSTRACT

Objective: The Newborn Individualized Developmental Care and Assessment Program (NIDCAP) has been developed to create a common point to enhance the parameters of neonatal health by Als et al. This research was planned to determine the knowledge level about NIDCAP of midwives working in the delivery room.

Methods: The research is descriptive, which a sample consists of 385 midwives estimated with sampling method with the known universe. The ethical approval was obtained. Midwives' consent was obtained. Data was collected with the questionnaire form that was prepared by researchers and five expert opinions. Numerical values and percent values were analyzed in the statistical evaluation and data were analysed with Chi-Square Test.

Results: It was determined in our study that 59.2% of midwives didn't know NIDCAP. The midwives answered correctly each of the questions about neonatal care in keeping with NIDCAP. Besides there was a significant relationship between "midwives who had foreknowledge" and "midwives who worked in Neonatal Intensive Care Unit ($p=.001$), think that NIDCAP is implemented in their hospital ($p=.001$) and think that their friends support NIDCAP ($p=.001$ ". This result shows that getting information about NIDCAP has increased midwives' awareness of NIDCAP. Even though the vast majority of midwives had no education, the care given by the midwives was found quite accordant with the physiology of the neonatal.

Conclusion: It is important to provide training for NIDCAP and to enhance the education programs about NIDCAP for enhancing the quality of neonatal care and promoting neonatal health.

Keywords: Midwife, newborn, neonatal care

Öz

Amaç: Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı (YBGBDP), Als ve arkadaşları tarafından yenidoğan sağlığı parametrelerini iyileştirmek için ortak bir nokta oluşturmak adına geliştirilmiş bir programdır. Bu araştırma, doğumhanede çalışan ebelerin YBGBDP hakkındaki bilgi düzeylerini belirlemek amacıyla planlanmıştır.

Yöntemler: Araştırma tanımlayıcı niteliktedir. Çalışma örneklemini evreni bilinen örnekleme yöntemi ile hesaplanan toplam 385 ebe oluşturmaktadır. Araştırma için etik kuruldan izin alındı. Çalışmaya katılan ebelerden onam alındı. Veriler araştırmacılar ve beş uzman görüşü ile hazırlanan anket formu ile toplandı. İstatistiksel analizde sayısal değerler ve yüzde değerleri kullanıldı ve veriler Ki-Kare testi ile analiz edildi.

Bulgular: Çalışmamızda doğumhanede hizmet veren ebelerin %59,2'sinin YBGBDP hakkında herhangi bir bilgiye sahip olmadığı belirlendi. Yenidoğan bakımı ile ilgili yöneltilen soruların her birine, YBGBDP'ye uygun bir cevap verilmiştir. Ayrıca daha önce YBGBDP hakkında bilgi almış olan ebeler ile yenidoğan biriminde çalışma ($p=0,001$), YBGBDP'nin kurumunda uygulandığını ($p=0,001$) ve kurum ile arkadaşlarının YBGBDP'yi desteklediğini ($p=0,001$) belirtme faktörleri arasında anlamlı bir ilişki saptanmıştır. Bu sonuç, YBGBDP hakkında bilgi almanın, ebelerin bu program hakkındaki farkındalığını artırdığını göstermektedir.

Sonuç: YBGBDP hakkında ebelerin büyük çoğunluğunun eğitim almamasına rağmen yenidoğanın fizyolojisine uygun hizmet verdiği bulunmuştur. Ebeler YBGBDP ile ilgili eğitim programlarının verilmesi ve yaygınlaştırılması yenidoğana verilen bakım kalitesinin artırılmasında ve sağlığın sürdürülmesinde önemli bir faktördür.

Anahtar Kelimeler: Ebe, yenidoğan, yenidoğan bakımı

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Introduction

The NIDCAP is a developed program by Als et al. to show respect for the individualism of newborns and its family is the focus of this program. The program is based on the sufficiency notion of the newborn. This notion consists of modulation, regulation, and differentiation of the five different operating subsystems that are motor, attentional/interactional, autonomic, self-regulatory systems and state regulatory or state organizational (ability to have well-defined sleep, quiet, crying states and awake) and those systems can be observed behaviorally. The underlying notion is denominated as “the synactive theory” to emphasize the simultaneous maturing and interplaying of the different behaviour subsystems during the development (Als et al., 2012; Baghlani et al., 2019; Charafeddine et al., 2020; Westrup, 2007). The primary tool in the NIDCAP is the repeated natural observation of the baby before, during, and after the care procedure. These observations focus on the self-regulation efforts that emerged from approach or avoidance behaviour. When the sensory input is suitable, the baby acts towards the stimulus and exhibits self-regulatory behaviour. However, when the sensory input is either too big or too much due to inappropriate timing, the baby exhibits either avoidance behaviour or stress (Baghlani et al., 2019; Mosqueda et al., 2013; Westrup, 2007). The available development targets for each baby are formulated under the skin of such observations. The care plans including individualized care aimed at the stage of available development of the baby and the requirements of its family and recommendations related to environmental changes are prepared. These recommendations are changed accommodately as the baby matures (Baghlani et al., 2019; Charafeddine et al., 2020; Mirlashari et al., 2019; Mosqueda et al., 2013; Westrup, 2007). In addition to this, sensitive caregivers learn to monitor the baby carefully, noting down the baby’s reactions to different utilization and care and regulating proper continuously. The NIDCAP is family-centered care. The purpose is to strengthen the family by helping them to enhance the family’s care skills and techniques and to incorporate them as a part of the health team (Baghlani et al., 2019; Charafeddine et al., 2020; Mirlashari et al., 2019; Westrup, 2007). By definition, the NIDCAP is implemented especially in the NICU. Therefore the NIDCAP is known by the nurses working in the NICU and education about the NIDCAP is provided to the nurses who work in the NICU. When the literature is examined, the studies about the NIDCAP are performed with the nurses and doctors working in the NICU. No study about the NIDCAP that was performed with midwives was found (Baghlani et al., 2019; Charafeddine et al., 2020; Mirlashari et al., 2019; Mosqueda et al., 2013). The midwives who assist birth of the newborn,

first examine the newborn immediately after birth, evaluate the newborn at the “golden minute”, if it is a necessity to start to vitalize, and transfer the newborn to NICU, if there is no issue with the viability, monitor the baby with its mother, give first care the baby, are a member of a profession. Midwifery is the profession that assists in childbirth, does the first examination of the newborn immediately after the birth, evaluates the newborn at the “golden minute”, starts the vitalization process and transfers the newborn to the NICU if necessary, and monitors the newborn with its mother at the delivery room if no viability complication occurs (ICM, 2017). While the midwives give care to the newborns, differences can emerge according to the midwives’ knowledge about the NIDCAP.

This research is planned for determining the knowledge levels of midwives who work in the delivery room, about the NIDCAP and to analyse the connection between giving care to the newborn and the NIDCAP. This study is the first study that will be brought to literature, performed with midwives about the NIDCAP, hereby it is expected for this study to create awareness about the topic that midwives need education about the NIDCAP

Methods

Study Design, Sample and Setting

The research is descriptive. The research universe consists of the midwives who work at The Ministry of Health in November 2020 and February 2021. According to data in 2019, The Ministry of Health has 55972 working midwives (T.C. Sağlık Bakanlığı, 2019). The sample size of this research was estimated with sampling method with the known universe because the consequence yardstick was categorical [$n = (N * t^2 * p * q) / [d^2 * (N - 1) + t^2 * p * q]$]. It was taken as “ $N=52772$, $p=0.5$, $q=0.5$, $t=1.96$, $d=0.05$ ” the formula and the minimum midwives count were calculated as 383 and it was reached 385 midwives in this study.

Instruments and Procedure

Data in the research were collected with questionnaire forms that were created via Google Forms and these forms were sent via social media such as Facebook, WhatsApp, Gmail, etc. due to the pandemia. The questionnaire form was constituted by the researcher by reviewing the literature (Baghlani et al., 2019; Charafeddine et al., 2020; Mirlashari et al., 2019; Mosqueda et al., 2013) and was edited by receiving the opinions of five experts in the newborn health field. The questionnaire form consists of three parts. The first part has 10 questions about the descriptive features and work experience of the midwives (Table 1), the second part has 26 questions about the NIDCAP and the applications related to the newborns in the delivery room (Table 2) and the third part has 6 questions

about assessment the significant difference between having information about NIDCAP and work experience (Table 3).

All questions were prepared for indicating the accuracy of midwives' foreknowledge about NIDCAP by taking account of those issues: midwives' work experience in delivery room or NICU, their knowledge about NIDCAP, their workplace support NIDCAP or not. In addition these questions were constituted according to NIDCAP's components such as arranged environmental, adjusted temperature degree, controlled level of sound and flash, kangaroo care, family-centered care. The answers were evaluated in the light of NIDCAP's parameters which are motor, attentional/interactional, autonomic, self-regulatory systems and state regulatory or state organizational. Created questions were asked to all midwives via Google Forms platform. Before answering these questions, there was a detailed explanation about the aim of this study as informed consent form. If the midwives accepted to participate in this study, they continued to the questions page by choosing the confirmation option.

Statistical Analysis

The data was obtained as a result of the evaluated research with the SPSS-22 program and error checks, tables, and statistical analyses were made. The test of normality by giving numerical values and percent values were analyzed in the statistical evaluation. Thereafter the histogram construction was plotted, and the values of the skewness and kurtosis and the analysis of the Kolmogorov-Smirnov were evaluated. Then Chi-Square test was made according to normality status. The statistical significance level was taken as $p < 0.05$.

Ethical Approval

The ethics committee approval was obtained with the approval number "46418926-050.01.04" from "The Hamidiye Scientific Researches Ethical Committee" on the date of 23.10.2020 for performing the study.

Results

The average age of the midwives who attended this study was 30.35 ± 7.20 (min:20, max:56). The time of occupational experience in midwifery was 7.85 ± 7.6 (min:1, max:35).

49.1% of the midwives who attended this study were married, 79.5% of them had bachelor's degrees, 9.4% of them had postgraduate education, and 7.3% of them had either high-school graduate or associate degrees.

The 42.1% of the midwives who attended this study worked for one to four years in the delivery room, 25.9% of them (n=100) worked at NICU and 41.6% of them (n=160) had

information about the NIDCAP (Table 1).

Descriptive Features	n	%	Descriptive Features	n	%
The time of occupational experience			The time working in the delivery room		
<1 year	85	22.1	<1 year	122	31.7
1-4 years	103	26.7	1-4 years	162	42.1
5-9 years	77	20.0	5-9 years	57	14.8
>10 years	120	31.2	>10 years	44	11.4
Total	385	100.0	Total	385	100.0
The experience of working at NICU			How do you have that information about NIDCAP?		
<1 year	33	33.0	University	55	34.3
1-4 years	57	57.0	In-service training activities	67	41.9
5-9 years	8	8.0	Internet	7	4.4
>10 years	2	2.0	Congress/Symposium	31	19.4
Total	100	100.0	Total	160	100.0
Do you think that your co-workers support NIDCAP?			Do you think that your information about NIDCAP is sufficient?		
Yes	249	64.7	Insufficient	33	23.6
No	136	35.3	Partly sufficient	94	67.1
Total	385	100.0	Completely sufficient	13	9.3
			Total	140	100.0
Do you think that the NIDCAP is applied in your hospital?			Do you think that your hospital supports the NIDCAP?		
Yes	190	49.4	Yes	216	56.1
No	195	50.6	No	169	43.9
Total	385	100.0	Total	385	100.0
Do you have any information about the NIDCAP?			Have you ever worked in the NICU?		
Yes	160	41.6	Yes	98	25.5
No	225	58.4	No	287	74.5
Total	385	100.0	Total	385	100.0

The midwives answered all questions about neonatal care in keeping with NIDCAP, respectively (Table 2).

According to statistics, there was no statistically significant difference between the marital and educational status and place of NIDCAP training of the midwives who participated in this study. As a result of the comparison of characteristics of midwives according to their information about the NIDCAP, there was a statistically significant difference between midwives who work in the NICU and midwives who think that the NIDCAP is applied and supported in their hospital and think that the NIDCAP is supported by their co-workers (Table 3).

Table 2.
The Assessment in Midwives' Attitudes About NIDCAP

STATEMENTS	Yes		No	
	n	%	n	%
Is the NIDCAP applied to the newborn in your hospital?	269	69.9	116	30.1
I close the alarm as soon as possible when the alarms of the equipment such as the monitor, and radiant heater alarm.	355	92.2	30	7.8
I support the decrease of the voices in the delivery room.	347	90.1	38	9.9
I think that the newborn might be uncomfortable with the voices.	322	83.6	63	16.4
I close the lamp of the radiant heater when I do't give care to the newborn.	307	79.7	78	20.3
I think that the newborn might be uncomfortable with the lights.	321	83.4	64	16.6
I avoid touching the newborn unnecessarily or frequently.	333	86.5	52	13.5
I touch or massage the newborn when the newborn cries.	328	85.2	57	14.8
I think that the newborn can get stressed	366	95.1	19	4.9
I think that the newborn has a perception of pain.	350	90.9	35	9.1
I swaddle the newborn.	247	64.2	138	35.8
I give the newborn a fetal position.	240	62.3	145	37.7
I support the position of the newborn with a diaper, pillow, blanket, etc.	323	83.9	62	16.1
I support family participation when I give care to the newborn.	292	75.8	93	24.2
I support the skin-to-skin contact between the newborn and its family.	376	97.7	9	2.3
I support frequent breastfeeding of the newborn.	378	98.2	7	1.8
I care that the newborn is cared for by the same midwife.	318	82.6	67	17.4
I give the mother the training discharge about newborn care.	357	92.7	28	7.3
I support nonnutritive sucking.	223	57.9	162	42.1
I provide the newborn's contact with its father and family in regards to the holistic approach.	327	84.9	58	15.1
I use aspiration on every newborn to ward off secretions.	99	25.7	286	74.3
I use aspiration only when it is necessary.	360	93.5	25	6.5
I avoid controlling unnecessary interventions such as anal atresia.	226	58.7	159	41.3
In cases where breastfeeding is medically contraindicated, I recommend providing breast milk support to the newborn	280	72.7	105	27.3
I can apply the first care of a baby who is born at term, is crying/breathing after birth, is with good muscle tone, in the mother's arms.	318	82.6	67	17.4

Table 3.
Comparison of Midwives' information about the NIDCAP according to some characteristics

The Status of Getting Information About The NIDCAP	Yes		No		Total	
	n	%	n	%	n	%
The time of occupational experience						
<1 year	36	42.4	49	57.6	85	100.0
1-4 years	36	35.0	67	65.0	77	100.0
5-9 years	28	36.4	49	63.6	77	100.0
>10 years	57	47.5	63	52.5	120	100.0
Total	157	40.8	228	59.2	385	100.0
$\chi^2:6.627, p:0.085$						
The time of occupational experience in the delivery room						
<1 year	43	35.2	79	64.8	122	100.0
1-4 years	63	38.9	99	61.1	162	100.0
5-9 years	26	45.6	31	54.4	57	100.0
>10 years	25	56.8	19	43.2	44	100.0
Total	157	40.8	228	59.2	385	100.0
$\chi^2:4.402, p:0.221$						
Have you ever worked in the NICU?						
Yes	53	54.1	45	45.9	98	100.0
No	104	3.62	183	63.8	287	100.0
Total	157	40.8	228	59.2	385	100.0
$\chi^2:9.633, p:0.001***$						
Do you think that the NIDCAP is applied in your hospital?						
Yes	103	54.2	87	45.8	190	100.0
No	54	27.7	141	72.3	195	100.0
Total	157	40.8	228	59.2	385	100.0
$\chi^2:28.022, p:0.001***$						
Do you think that your information about the NIDCAP is sufficient?						
Insufficient	25 ^a	75.8	8 ^b	24.2	33	100.0
Partly sufficient	90 ^a	95.7	40 ^b	4.3	94	100.0
Completely sufficient	12 ^a	92.3	1 ^a	7.7	140	100.0
Total						
$\chi^2:11.627, p:0.003**$						
Do you think that your co-workers support the NIDCAP?						
Yes	124	49.8	125	50.2	249	100.0
No	33	24.3	103	75.7	136	100.0
Total	157	40.8	228	59.2	385	100.0
$\chi^2:23.748, p:0.001***$						
χ^2 : Chi square test; a,b: Significant groups; *p< 0.05, **p< 0.01, ***p< 0.001.						

Discussion

The NIDCAP is a program that is applied in every unit and especially in NICUs where the newborn is present. The NIDCAP is known by newborn nurses and doctors. Healthcare professionals are regularly trained on the NIDCAP. The NIDCAP training program is regularly given to healthcare professionals (Baghlani et al., 2019; Charafeddine et al., 2020; Mirlashari et al., 2019; Mosqueda et al., 2013). It is stated in our study that 59.2% of the midwives who work in the delivery room in Turkey, did not have any information about the NIDCAP. This result has shown that the midwives in the delivery room, need to get training about the NIDCAP. It was stated in the study by Charafeddine et al. (2020) that the health professionals who

work in the NICU need more training about the NIDCAP (Charafeddine et al., 2020). It is emphasized in the study by Mirlashari et al. (2019), that education is necessary for health professionals to keep their information up-to-date and to create a common language (Mirlashari et al., 2019). The 34.4% of midwives who have information about the NIDCAP, stated that this information was learned in school. It was stated in the study of Mirlashari et al. (2019) that it is necessary to give training at school age (Mirlashari et al., 2019). It was emphasized in the study of Baghlani et al. (2019) that it is important for training to be provided by the hospital (Baghlani et al., 2019). It is seen that it is important to include the NIDCAP into the curriculum and to keep the NIDCAP sustainable with the service training. Thus this information will be kept updated and a common protocol will be applied in the hospitals. The maintainability and the auditability in the education will be provided with standard protocols.

In our study, 56.1% of midwives stated that this program is supported by their hospital, the 50.6% of them stated that their hospital does not give care according to this program. It is stated in the study of Mosqueda et al. (2013) that the NIDCAP can be supported by increasing the number of personnel, providing training about this program, and providing the necessary of equipment (Mosqueda et al., 2013). These hospitals support the program, increasing the number of personnel, and providing in-service training is important for the newborn's health. In our study, most of the midwives positively responded to the questions related to the implementation of the components of the NIDCAP which has a positive effect on the health parameters of the newborn, in the delivery room. These results have parallels with the results of the study of Charafeddine et al. (Charafeddine et al., 2020). In the study by Mirlashari et al. (2019), health professionals working in the NICU stated that NIDCAP is a milestone for newborn care (Mirlashari et al., 2019). In the same way, in the study of Baghlani et al. (2019), health professionals working in the NICU stated that NIDCAP is important for the health of newborns (Baghlani et al., 2019).

The healer environment is one of the main components of NIDCAP. Especially reducing both light and noise within the scope of the NIDCAP cures the health parameters of the newborn. It was observed that the midwives have a high level of participation in (79.9%) turning off the lamp of the radiant heater, reducing (90.1%) the speech and (92.2%) the device sounds, in the delivery room. The midwives thought that the newborn might get disturbed by because of them (83.6%) noises and (83.4%) lights. It was stated in the study of Charafeddine et al. (2020), that the health professionals

working in the NICU told the same thing in our study. This conclusion shows similarities with the results of our study (Charafeddine et al., 2020). In the study by Mosqueda et al. (2013), attention was drawn to the importance of the health professionals working in the NICU in reducing lights and noise (Mosqueda et al., 2013). The newborn can tolerate a certain loudness of voice in its environment. More than this level of loudness of voice affects the health of the newborn negatively. In our study, 83.6% of midwives thought that the newborn can be disturbed because of the sound. In the study of Bayar Şakin and Altundağ (2020) training was provided to the healthcare professionals working in the NICU to prevent the noise. While the rate of thinking that the noise is harmful to the health of newborns was 92.7% before training, the rate increased to 100% after training. Compared to this result, the rate of midwives who think that the newborn is affected by noise was found low in our study. Therefore, it is thought that this rate can be increased by giving training just as in the study of Bayar Şakin and Altundağ (2020) (Bayar Şakin and Altundağ, 2020).

It is seen that the parameters related to swaddling the newborn, providing the fetal position, and providing non-nutritive sucking were applied less than the other parameters. It is shown that differences among the midwives change these rates. In addition, it is estimated that the NIDCAP was less applied since these parameters increase the workload intensity or, due to the current workload. It is stated in the study of Charafeddine et al. (2020) that the NIDCAP implementation takes time or increases the workload intensity and it is also stated that there is no good cooperation among healthcare professionals. It is stated in the study of Mirlashari et al. (2019), the NIDCAP is not implemented sufficiently since there is too much workload. It is reported in the study of Mosqueda et al. (2013) that both inadequate cooperation among healthcare professionals and a low amount of professionals negatively affected the NIDCAP. These results of studies support our study's results (Charafeddine et al., 2020; Mirlashari et al., 2019; Mosqueda et al., 2013).

Non-nutritive sucking must be practiced especially for newborns who were born before the 34th week of gestation to improve sucking skills. Regardless of the week that the newborn was born, promoting non-nutritive sucking provides a therapeutic effect on the newborn. The non-nutritive sucking calms the newborns in stressful situations. Non-nutritive sucking provides the newborns' analgesia impact, especially in painful care (Kaynak et al., 2020). 95.1% of midwives thought that the newborns could get stressed, 90.9% of them thought that the newborns could perceive pain and 57.9% of them supported non-nutritive

sucking. According to these results, midwives are aware that the newborn perceives stress and pain. In situations of pain and stress, the rate of midwives' supporting non-nutritive sucking as a therapeutic effect is low. So it can be thought that midwives need to get information about non-nutritive sucking. Supporting the newborn's position is one of the important components of the NIDCAP. 64.2% of midwives swaddled the newborns, 62.3% of them gave the fetal position to the newborns, and 83.9% of them supported the position of the newborn with materials such as diapers, pillows, blankets, etc. In the study by Aydın and Çiftçi (2015), 61.5% of participants stated that it is necessary to support the body of the newborn, and 59.6% of them used blankets to support the body of the baby (Aydın and Çiftçi, 2015). It appears that different techniques or materials are used to support the newborn's body or position. It is important to create a common language in the care of newborns such as positioning, swaddling, and protecting the body temperature. An important component of the NIDCAP is the inclusion of family members in newborn care. 82.6% of midwives give care to the newborn without any viability issues in their mother's arms. 75.8% of midwives supported the participation of newborn families during newborn care. 92.7% of midwives give education about the care of newborns to the mothers, and 84.9% of them provided contact both with their family and their father. These results show that the midwives supported family-centered care. The results of the study by Mirlashari et al. (2019) support our study's results (Mirlashari et al., 2019). In the study of Sannino et al. (2016), the healthcare professionals working in the NICU incorporated the family members into the newborn care in conformity with the NIDCAP. It was reported in the conclusions of the study that this situation positively affects the health parameters of the newborn (Sannino et al., 2016). The study by Solhaug et al. (2010), is notified that incorporating family members into newborn care is beneficial for newborn health (Solhaug et al., 2010).

World Health Organization (WHO) and International Liaison Committee on Resuscitation (ILCOR) recommend that active and lively newborns should not be aspirated, and their mouths should be cleaned with a sterile sponge or gauze for newborns' health. 93.5% of midwives aspirated the newborns in necessary cases, and 74.3% of them routinely did not aspirate the newborns to ward off the secretions. These results show that the midwives in Turkey consider the suggestions of WHO and ILCOR for newborn health (ILCOR, 2015; WHO, 2017). WHO recommends the skin to skin contact and reports that this method is important for the health of newborns and their mothers, and this method can be applied inexpensively and easily postpartum. The rate of applying skin-to-skin contact postpartum is 97.7% and the rate of providing newborn care in the mother's arms is

82.6%. In addition, the skin to skin contact helps newborns to suck. WHO recommends that breastfeeding should be initiated within the first hour of postpartum and continue for six months (WHO, 2020). 98.2% of midwives reported that they provided frequent breastfeeding during the newborn and maternity care in the delivery room at postpartum. When these results are evaluated, the midwives in Turkey noteworthy apply both breastfeeding and skin-to-skin contact according to the suggestions of WHO. 82.6% of midwives stated that it is important to provide care to the newborn by the same midwife. No other study or study result is evaluating this parameter. According to this result, 82.6% of midwives continue to care for the newborn that they take care of, hence they care about having the same midwife in newborn care. There were significant relationship factors between "midwives with previously taken information about the NIDCAP" and "to work in a neonatal intensive care unit, to think that the NIDCAP is implemented in their hospital and to state that their coworkers and hospital support the NIDCAP". This result shows that getting information about the NIDCAP increases the awareness of midwives about the NIDCAP. To increase the quality of care, the midwives who did not have training about the NIDCAP should be supported to get training.

Conclusion and Recommendations

In our study, it was found that most of the midwives who undertake the first care of the newborn in the delivery room did not receive information or training about the NIDCAP. Despite this result, it is seen that midwives have behavioural choices suitable for the physiology and the health of the newborn in newborn care. It is important for midwives who work in units that come into contact with newborns, to promote getting training about the NIDCAP in the school curriculum, in-service training, and scientific activities such as symposiums and congresses.

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Hasta Onamı: Çalışmaya katılan ebelerden onam alındı.

Hakem Değerlendirmesi: Dış bağımsız.

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References

- Als, H., Duffy, F. H., McAnulty, G., Butler, S. C., Lightbody, L., Kosta, S., Weisenfeld, N. I., Robertson, R., Ringer, S. A., Blickman, J. G., Zurakowski, D., & Warfield, S. K. (2012). NIDCAP improves brain function and structure in preterm infants with severe intrauterine growth restriction. *Journal of Perinatology*, 32(10), 797-803. DOI: 10.1038/jp.2011.201
- Aydın, D., and Çiftçi, E. K. (2015). Neonatal Intensive Care Unit Nurses' levels of information regarding therapeutic positions to be applied to preterm newborns. *The Journal of Current Pediatrics*, 13(1), 21-30. <https://doi.org/10.4274/jcp.26349>
- Baghlani, R., Hosseini, M. B., Safaiyan, A., Alizadeh, M., & Bostanabad, M. A. (2019). Neonatal Intensive Care Unit Nurses' perceptions and knowledge of Newborn Individualized Developmental Care and Assessment Program: A Multicenter Study. *Iranian Journal of Nursing And Midwifery Research*, 24(2), 113. Doi:10.4103/ijnmr.IJNMR_54_18
- Bayar Şakin, N. and Altundağ, S. (2020). The effect of noise control training given to Newborn Neonatal Intensive Care Unit workers and parents. *Journal of Ankara Health Sciences*, 9(1), 40-52. DOI: <https://www.doi.org/10.46971/ausbid.639334>
- Charafeddine, L., Masri, S., Sharafeddin, S. F., & Badr, L. K. (2020). Implementing NIDCAP training in a low-middle-income country: comparing nurses and physicians' attitudes. *Early Human Development*, 147 (August), 105092. DOI: 10.1016/j.earlhumdev.2020.105092
- International Confederation of Midwives (ICM). (2017). International Definition of the Midwife. https://www.internationalmidwives.org/assets/files/definitions-files/2018/06/eng-definition_of_the_midwife-2017.pdf
- International Liaison Committee on Resuscitation (ILCOR). (2015). Part 7: Neonatal Resuscitation. International Consensus On Cardiopulmonary Resuscitation And Emergency Cardiovascular Care Science With Treatment Recommendations. <https://www.cpqcc.org/sites/default/files/peds.2015-3373D.full.pdf>
- Kaynak, S., Yılmaz, H. B., Başbakkal, Z., Yardımcı, F. (2020). Developmental Care in the Neonatal Intensive Care Unit. *KSU Medical Journal*, 15(3), 82-87. <https://doi.org/10.17517/ksutfd.700450>
- Mirlashari, J., Fomani, F. K., Brown, H., Tabarsy, B. (2019). Nurses' and physicians' experiences of the NIDCAP model implementation in Neonatal Intensive Care Units in Iran. *Journal of Pediatric Nursing*, 45 (January) e79-e88. doi:10.1016/j.pedn.2018.12.014
- Mosqueda, R., Castilla, Y., Perapoch, J., Lora, D., López-Maestro, M., Pallás, C. (2013). Necessary resources and barriers perceived by professionals in the implementation of the NIDCAP. *Early Human Development*, 89(9), 649-653. doi:10.1016/j.earlhumdev.2013.04.011
- Sannino, P., Gianni, M. L., De Bon, G., Fontana, C., Picciolini, O., Plevani, L., Fumagalli, M., Consonni, D., Mosca, F. (2016). Support to mothers of premature babies using NIDCAP method: A Non-randomized controlled trial. *Early Human Development*, 95 (April) 15–20. doi:10.1016/j.earlhumdev.2016.01.016
- T.C. Sağlık Bakanlığı, İstatistikler ve Yayınlar, Sağlık İstatistikleri Yıllıkları, Sağlık İstatistikleri Yıllığı, 2019, s211.
- Solhaug, M., Torunn Bjørk, I., Pettersen Sandtrø, H. (2010). Staff perception one year after implementation of The Newborn Individualized Developmental Care and Assessment Program (NIDCAP). *Journal of Pediatric Nursing*, 25(2), 89–97. doi:10.1016/j.pedn.2009.11.004
- Westrup, B. (2007). Newborn Individualized Developmental Care and Assessment Program (NIDCAP)- family-centered developmentally supportive care. *Early Human Development*, 83 (7), 443-449.
- World Health Organization (WHO). (2017). Recommendations on Newborn Health. <https://apps.who.int/iris/bitstream/handle/10665/259269/WHO-MCA-17.07-eng.pdf;jsessionid=E58AF332717518F6CAB4BD3B7CF8A05?sequence=1>
- World Health Organization. (2020). Infant And Young Child Feeding. <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding#:~:text=WHO%20and%20UNICEF%20recommen,nd%3A,years%20of%20age%20or%20beyond>
- World Health Organization. (2020). Skin-To-Skin Contact Helps Newborns Breastfeed. <https://www.who.int/westernpacific/news/feature-stories/detail/skin-to-skin-contact-helps-newborns-breastfeed#:~:text=This%20is%20according%20to%20a,be%20physically%20ready%20to%20breastfeed>

Genişletilmiş Özet

Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı, Als ve arkadaşları tarafından yenidoğan sağlığı parametrelerini iyileştirmek için ortak bir nokta oluşturmak adına geliştirilmiş bir programdır. Yenidoğan ve ailesinin bireyselliğine saygı duymak bu programın odak noktasıdır. Program, davranışsal olarak gözlemlenebilir beş farklı işlevi alt sisteminin düzgünlüğü ve modülasyonu, düzenlenmesi ve farklılaşması olarak kavramsallaştırılan yenidoğan yeterliliği kavramına dayanmaktadır. Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı'nda kullanılan ana araç, bakım prosedürleri öncesinde, sırasında ve sonrasında bebeğin tekrarlanan doğal gözlemleridir. Bu gözlemler, yaklaşım veya kaçınma davranışı ile ortaya konduğu üzere öz düzenleme çabalarına odaklanır. Her bebek için mevcut gelişim hedefleri, bu tür gözlemler temelinde formüle edilir. Bebeğin mevcut gelişim aşamasına ve ailenin ihtiyaçlarına göre kişiselleştirilmiş bakım ve çevresel değişikliklere ilişkin tavsiyeler içeren bakım planları tasarlanır. Bebek olgunlaştıkça, bu öneriler uygun şekilde değiştirilir. Buna ek olarak, duyarlı bakıcılar dikkatlice izlemeyi, bebeğin farklı kullanım ve bakıma karşı tepkilerini not etmeyi, sürekli olarak uygun ayarlamaları yapmayı öğrenirler. YBGBP aile merkezlidir. Amaç, aileyi uygun bakım becerilerini ve tekniklerini geliştirmelerine yardımcı olarak güçlendirmek ve böylece onları sağlık ekibinin bir parçası olarak dahil etmektir.

Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı yenidoğan yoğun bakım ünitelerinde bakımın bir parçası olarak kullanıldığı için yenidoğan yoğun bakım hemşireleri tarafından bilinmektedir. Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı ilgili bu alanda çalışan hemşirelere eğitim verilmektedir. Literatür incelendiğinde, Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı ile yapılan çalışmalar yenidoğan yoğun bakım hemşireleri ve hekimleri ile yürütülmektedir. Ancak bu programın yenidoğanın yaşamının başladığı doğumhanede kullanılabilirliği ve bu üniteye çalışan ebeler tarafından tanınmışlığı ile ilgili bilgi sınırlıdır. Ebelerle yürütülen Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı ile ilgili bir araştırma makalesi bulunmamaktadır.

Bu tanımlayıcı nitelikteki araştırma, doğumhanede çalışan ebelerin Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı hakkındaki bilgi düzeylerini belirlemeyi amaçlamıştır. Çalışma örnekleme evreni bilinen örnekleme yöntemi ile hesaplanmıştır. Örneklem olarak toplam 383 ebe ile görüşülmüştür. Verilerin toplanmasında sosyal medya kanalı aralığı ile ebelere ulaşılmıştır. Veriler araştırmacılar ve beş uzman görüşü ile hazırlanmış anket formu kullanılarak toplanmıştır. Anket formu üç bölümden oluşmaktadır. Birinci bölümde ebelerin tanımlayıcı özelliklerinin incelendiği yedi soru, ikinci bölümde Yenidoğanın Bireyselleştirilmiş Destekleyici Gelişimsel Bakım Programı ile ilgili sekiz soru ve üçüncü bölümde doğumhanede yenidoğan uygulamalarına ilişkin 26 soru bulunmaktadır.

Çalışmaya katılan ebelerin yaş ortalaması 30.35 ± 7.20 (min:20, max:56)'dur. Ebelikte geçen mesleki deneyim süresi 7.85 ± 7.6 (min:1, max:35) yıldır. Çalışmaya katılan ebelerin %42.1'i doğumhanede bir ile dört yıl arasında çalışmakta, %25.5'i yenidoğan biriminde çalışmakta ve %40.8'inin de YBDGBP hakkında bilgisi vardır. Çalışmamızda doğumhanede hizmet veren ebelerin %59,2'sinin Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı hakkında herhangi bir bilgiye sahip olmadığı belirlendi. Bu sonuç doğumhanedeki ebelerin bu konu hakkında eğitime ihtiyacı olduğunu göstermektedir. Aynı zamanda çalışmamızda ebelerin %56,1'i bu programın kurumlarında desteklendiğini, %50.6'sı ise kurumlarında bu programa göre bakım verilmediğini belirtmiştir. Bu sonuç Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı'na uygun politika ve eğitimlerin kurumlar tarafından desteklenmesine yönelik ihtiyacın olduğunu göstermektedir.

İyileştirici çevre Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı'nın temel bileşenlerinden biridir. İyileştirici çevrenin oluşturulması için özellikle ışık ve gürültünün azaltılması, yenidoğanın sağlık parametrelerini iyileştirmektedir. Doğumhanede çalışan ebelerin %59,2'si bu program hakkında bilgi ya da eğitime sahip olmamalarına rağmen, iyileştirici çevreyi sağlama oranları yüksek bulunmuştur. Ayrıca yenidoğan bakımı ile ilgili soruları Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı'nın standartlarına uygun olarak yanıtlamıştır.

Dünya Sağlık Örgütü doğum sonrası ucuz ve uygulanabilir bir yöntem olan anne ve yenidoğanın ten tene temas etmesinin, yenidoğan ve anne sağlığı için önemli olduğunu bildirmiş ve önermiştir. Çalışmamızda ebelerin doğum sonrası yenidoğanı anne ile ten tene temasını sağlama oranı %97.7 ve aktif yenidoğanın bakımını anne kucağında gerçekleştirme oranı %82.6'dır. Türkiye'de doğumhanede çalışan ebeler, Dünya Sağlık Örgütü önerilerine göre emzirme ve ten tene temasın uygulanmasını dikkate değer bir oranda gerçekleştirmektedirler.

Çalışmamızda en dikkat çeken sonuçlardan biri ebelerin %82.6'sı, bir yenidoğana aynı ebenin bakım vermesini önemseydiğini ifade etmiştir. Bu parametreyi değerlendiren bir başka çalışma sonucu bulunmamaktadır. Bu sonuca göre ebelerin %82.6'sı bakımını üstlendiği yenidoğanın bakımını devam ettirdiğini, dolayısıyla bakımda aynı ebenin olmasını önemseydiğini göstermektedir.

Ebelerin daha önce yenidoğan yoğun bakım ya da yenidoğan bakımı ile ilgili birimlerde çalışmasının, Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı hakkında bilgi sahibi olması ile arasında anlamlı bir ilişki çıkmıştır. Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı'nın kurumunda uygulandığını ifade eden ebelerin program hakkında bilgi sahibi olması arasında anlamlı ilişki saptanmıştır. Ayrıca çalıştıkları kurum ile çalışma arkadaşlarının bu programı desteklediğini ifade eden ebelerin Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı hakkında bilgi sahibi olduğu anlamlı olarak ile belirlenmiştir. Böylelikle çalışma arkadaşı, kurum ve çalışılan kliniğin Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı hakkında destekleyici politikalar izlemesi, ebelerde bu program hakkında farkındalık oluşmasını ve ebelik bakımına bu programın entegre edilmesini sağladığını göstermektedir. Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı hakkında ebelerin çoğunluğunun eğitim almamasına rağmen yenidoğanın fizyolojisine uygun hizmet verdiği belirlenmiştir.

Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı ile ilgili ebelere eğitim verilmesi, yenidoğana verilen bakım kalitesinin artırılmasında ve yenidoğan sağlığının sürdürülmesinde önemli bir faktördür. Özellikle yenidoğanla temas eden birimlerde çalışan ebelerin Yenidoğanın Bireyselleştirilmiş Gelişimsel Bakım ve Değerlendirme Programı hakkında kurumlarında hizmet içi eğitimlerle ve sempozyum, kongre gibi bilimsel etkinliklerle eğitimlerin sürdürülmesi önemlidir.