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ORIGINAL ARTICLE

Malpractice in midwifery: A cross-sectional retrospective study from Turkey

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Abstract

Medical malpractice could result from personal reasons such as negligence, carelessness, ignorance, lack of skills, and insufficiency in patient care. The aim of the authors of this study to determine the knowledge, views, experiences and observations of midwives about malpractice. The study was carried out between April-September 2013, on 75 midwiwes working in three different hospitals in a city of Turkey. The semi-structured interview form developed by researcher has been used. It has been determined that the causes of malpractice are mostly thought by midwives as inability and inexperience in profession (90.7%), carelessness (86.7%) and lack of attention (40%). It has been determined that 24% of the midwives has witnessed a faulty medical practice and 5.4% of midwives make medical errors. The most observed types of medical errors encountered by midwives; umbilical cord prolapses due to amniyotomy prematurely (42.7%), damage to the anal sphincter during episiotomy (62.7%) and forgetting foreign object after repair of episiotomy (32%). At the end of the study has appeared should be giving importance to vocational training and postgraduate service training for reducing medical errors and protection from malpractice midwives.

Keywords: Malpractice, midwifery, care, incorrect application, medical error

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Introduction

The importance of midwifery comes from its role in the health of women. The period of pregnancy has an undeniable importance for the health of both mothers' and the public. Medical failures and malpractices in this field could directly affect the health of public [1]. Moreover, midwives have additional roles such as adapting the professional practice standards, improving the services, and updating their knowledge about legal and professional organizations [2]. There has been a sharp increase in both the penalties and remedial actions against medical malpractices. This increase is evident in both the researches carried out in the court archives and statistical studies performed by experts of trials or surveys implemented by research institutions and companies. Among these institutions are the Supreme Council of Health, Institute of Forensic Medicine, Chambers of Medicine, and Directorates of Health [3]. In a study of Buken and Buken, of 653 files examined in the Institute of Forensic Medicine between the years of 1990 and 2000, 107 files were related to the field of gynaecology [4]. According to a study of Gündoğmuş et al. based on the records of Supreme Council of Health between 1993 and 1998, midwives had the highest rate of responsibility with 52% in 59 medical malpractice trials. This rate has been followed by physicians and nurses with a percentage of 29% and 19%, respectively [5]. The most common errors that have been subject to the trials of midwives are incapability in following the pregnant and the foetus, inability in evaluating the problems and complications related to pregnancy and not reporting these problems to the physician on time, implementing improper practices during childbirth (using vacuum extractor, faulty episiotomy), and using faulty or overdose oxytocin. Apart from these, there are also faulty practices related to patient security, drug applications, and communication and registering [5]. In a study that retrospectively examined 30 malpractice cases referred to the Supreme Court between 1978 and 2006 in Turkey, the cases related to the field of obstetrics and gynaecology comes second after surgical branches [6]. In another study carried out by Beigi et al. which retrospectively examined lawsuit petitions of malpractice allegations filed in 5 years period at Iranian institution of forensic medicine, 32% of 66 malpractice cases is related to midwives [1]. Women and new-born care is attached much importance in the United States of America and the risk of responsibility related to malpractice has been steadily increasing in the last 20 years [7]. It has been determined in a national web-based study carried out in the USA that midwives have been responsible for 25% of trials when this study has been carried out for the first time while this percentage has increased up to 32% and 35%, respectively, after 5 years and for later periods [7–9]. Angelini and Greenwald examined 65 closed lawsuits in 2005 related to nurse-midwives and identified that midwives were defendant in more than 60% of trials. Two major reasons for malpractice responsibility of midwives were identified again in this study [10]. One of these responsibility issues was related to foetal monitoring and the other was about shoulder dystocia. Mccool et al. examined 162 lawsuits related to malpractice of midwives between 2010 and 2011 and they categorized the reasons of malpractices as Angelini and Greenvald did [10,11]. Similar to the results of other studies, this study has also found out that foetal/new-born deaths or complications rank first while negligence in pregnancy and shoulder dystocia are other examples for malpractice [11]. As understood from similar results of the studies, it has been identified that the follow-up of mother-foetus and the management of childbirth that are the primary fields of care for midwives are risky particularly in terms of malpractice. The authors aim in this study identify not only the knowledge and opinions of midwives about malpractice but also the frequency of medical failure types that could cause malpractice which midwives have experienced and observed throughout their professional career.

Materials and Methods

Participants

The study was conducted a cross-sectional retrospective type. The universe of the study is 82 midwives working at maternity and postnatal wards of three hospitals in located in the centre

of a city in Turkey. Since three of them have been on leave at different times and four of them have been seconded at different departments, a total of 75 midwives have been included in the study.

Data Collection

Face-to-face interview technique were used to collect the data. The data collecting form has been created by researcher and contains three separate parts: first part consists of six questions revealing the descriptive and professional features of midwives; second part contains 11 questions investigating the knowledge and views of midwives about malpractice and their observations and experiences related to malpractice that they gained throughout their professional career; last part consists of 23 items created with the aim of identifying midwives' experiences with medical failure types throughout their professional career. The participants have responded to the items of the third part by selecting one of these two options: "yes (encountered)" or "no (never encountered)".

Data analysis

The statistical analysis was performed on SPSS (Statistical Package for the Social Sciences) for windows (version 21.0) through descriptive statistics (number, percentage calculation) and Chi-square tests. The value of statistical significance has been determined as $p<0.05$.

Ethics approval

The necessary approval to carry out the study has been received from the Ethics Committee of Non-Invasive Clinic Researches of the Faculty of Medicine at Çukurova University (Date: 14.02.2013, Registration Number: 16/27). The survey forms have been applied to midwives on voluntary basis whose oral and written consents have been received after being given information about the study.

Results

The mean age of the midwives is 36.37±8.82. The 38.7% of the midwives is the graduate of associate's degree while 32% and 29.3% are bachelor and high school graduate, respectively. The 45.3% works in delivery room and 54.7% works in postnatal wards. The average actual hours are 6.21±5.32 (min.-max.:0-25 years). The total actual hours in this profession is 15.87±9.35 (min.-max.:0-42 years) on average. The 84% of midwives is on the night shift while 16% is on the day shift (Table 1).

Table 1. Descriptive properties of midwives (n=75)

Properties	n	%
Age in years		
<30 years	16	21.3
30-44 years	44	58.7
≥ 45 years	15	20
Education status		
High school	22	29.3
Associate	29	38.7
License	24	32
Department		
Delivery ward	34	45.3
Postpartum service	41	54.7
Working time in the current unit		
0-5 years	44	58.7
5-10 years	20	26.7
≥ 10 years	11	14.7
Years of experience as midwife		
0-5 years	13	17.3
5-10 years	9	12
≥ 10 years	53	70.7
Shift		
*Night shift and mixed**	63	84.0
Day shift	12	16.0

*Mixed shift workers were included in this group.

The Findings Related to the Knowledge, Views, Observations and Experiences of Midwives about Malpractice

It has been identified that the 53.3% of the midwives has never heard of "malpractice" concept before and 66.7% has had no knowledge about faulty medical practices and legislative regulations related to malpractice (Table 2). When the level of education of the ones that have knowledge about the concept of malpractice is examined, it has been identified that the 91.7% of bachelors, 31% of associates and 18.2% of high school graduates have had knowledge about malpractice before. There has been found a statistical significance between the level of education and knowing of the concept of malpractice ($p<0.05$).

The first three reasons for malpractice according to midwives are professional inability and inexperience (90.7%), carelessness (86.7%), and lack of attention/care (40%) (Figure 1). Twenty-four percent of midwives has stated that they witnessed a faulty medical practice done by one of their colleague throughout their professional career. 18.7% has indicated that they witnessed once and 6.6% has indicated they witnessed

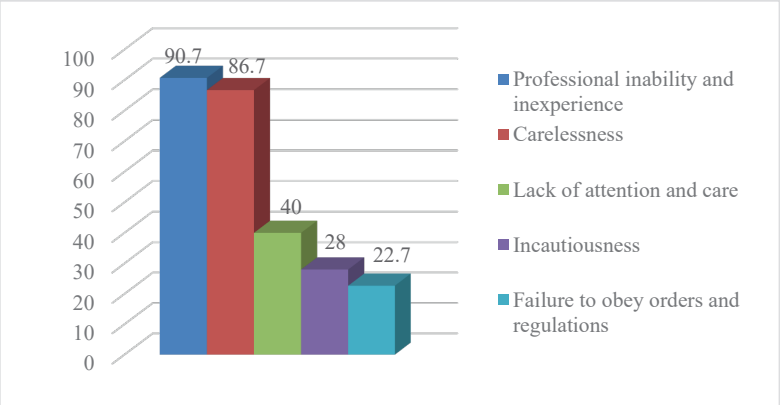

Figure 1. The distribution of reasons of failure according to midwives (More than one answer has been selected for the question)

Table 2. Descriptive properties of midwifes and their information status about malpractice

Features	**Know malpractice**		**p**	**Having knowledge about the legal regulations of malpractice**		**p**
	n	**%**		**n**	**%**	
Age in years						
<30 years	11	68.7	0.062	11	68.8	**0.002**
30-44 years	20	45.5		12	27.3	
≥ 45 years	4	26.7		2	13.3	
Education status						
High school	4	18.2	**<0.001**	3	13.6	**<0.001**
Associate	9	31.0		5	17.2	
License	22	91.7		17	70.8	
Department						
Delivery ward	15	44.1	0.817	11	32.4	0.534
Postpartum service	20	48.8		14	34.1	
Working time in the current unit						
0-5 years	23	52.3		19	43.2	0.065
5-10 years	10	50.0	0.121	5	25.0	
≥ 10 years	2	18.2		1	9.1	
Years of experience as midwife						
0-5 years	10	76.9		10	76.9	**0.001**
5-10 years	6	66.7	**0.013**	2	22.2	
≥ 10 years	19	35.8		13	24.5	
Shift						
*Night shift and mixed**	26	41.3	0.055	19	30.2	0.158
Day shift	9	75.0		6	50.0	
Total	**35**	**46.7**		**25**	**33.3**	

* Mixed shift workers were included in this group.

more than once to a legal proceeding against one of their colleagues due to malpractice. Out of 25 investigation cases to which midwives have witnessed, it has been identified that relevant persons have been executed penal sanctions in 8 cases (10.7%); the judicial process has been going on in 8 cases (10.7%); no judicial actions have been applied to relevant persons in 5 cases (6.7%), and the judicial process has been concluded in favour of relevant persons in 4 cases (5.3%). It has been observed that the midwives who have been working for more than 10 years within their department have witnessed a faulty medical practice of one of their colleagues that pose a risk for the patient safety at least once in their entire professional career. There has been a statistically significant difference between the year of experience at the department and witnessing to a faulty medical practice ($p<0.05$). 5.3% of the midwives has indicated that a legal action has been initiated against themselves due to an allegation of malpractice. The reasons of these four different cases because of which the midwives have undergone a legal action are the allegations of inadequate intervention to postpartum haemorrhage (PPH) due to uterine

Table 3. Midwives experiencing with medical errors

Types of Medical Errors	experiencing with medical errors n (%)
Medical errors specific to antenatal period	
– Umbilical cord prolapse due to untimely amniyotomy	**32 (42.7)**
– Quick birth because of hypertonic contractions due to excessive use of oxytocin	**25 (33.3)**
– Inability to follow-up fetal monitor and failure to identify fetal distress	**12 (16.0)**
– Development of fetal hypoxia due to excessive hypertonic contractions resulting from overuse of oxytocin	**8 (10.7)**
– Development of ablation placenta due to excessive hypertonic contractions resulting from overuse of oxytocin	**4 (5.3)**
– Development of uterine rupture due to excessive hypertonic contractions resulting from overuse of oxytocin	**2 (2.7)**
– Use of oxytocin in inappropriate presentations (cephalopelvic disproportion,transverse or breech presentation etc.)	**2 (2.7)**
Medical errors specific to during birth	
– Damage to the anal sphincter during episiotomy	**47 (62.7)**
– Neonatal brachial plexus due to birth trauma	**10 (13.3)**
– Dropping the baby	**7 (9.3)**
– Use of vacuum or forceps in unsuitable conditions	**6 (8.0)**
– Atonic bleeding connected with excessive Crede's Maneuver	**5 (6.7)**
– Atony due to extreme pressure from outside the uterus	**4 (5.3)**
– Cerebral palsy due to prolonged fetal hypoxia	**4 (5.3)**
– Uterus inversion due to excessive Crede's Maneuver	**3 (4.0)**
Medical errors specific to postpartum period	
– Forgetting a foreign body in the patient during episiotomy repair	**24 (32.0)**
– Aesthetic damage in the tissue as a result of incorrect repair an episiotomy	**22 (29.3)**
– stitches re-opening after episiotomy repair	**13 (17.3)**
– dorp newborn to the floor	**7 (9.3)**
– Damage of newborn with cutting-drilling tool	**1 (1.3)**
General medical errors	
– errors in vital signs	**27 (36.0)**
– misadministration to mother	**12 (16.0)**
– Taking wrong / inadequate medical history and anamnesis	**9 (12.0)**
– Misadministration to baby	**1 (1.3)**

atony (in two cases), new-born trauma (clavicle break during birth) and anal sphincter injury during episiotomy. It has been learnt that all the patients exposed to these faulty medical practices have fully recovered and there has been no sequellae because of these faulty practices.

Findings Related to Faulty Medical Practices Encountered by Midwives

The types of faulty medical practices encountered by the midwives have been grouped as "antenatal period", "intrapartum period", "postpartum period", and "general faulty medical practices" (Table 3). The most common faulty medical practices in these periods respectively are "damage to foetus after umbilical cord prolapse due to ill-timed amniotomy" (42.7%), "anal sphincter injury during episiotomy" (62.7%), "forgetting a foreign object inside vagina during episiotomy" (32%), and "identifying wrong vital signs" (36%).

Discussion

In this descriptive retrospective study, the knowledge and opinions of midwives as well as their observations and experiences they gained throughout their professional career about faulty medical applications and malpractices have been evaluated. It has been identified that almost half of the midwives participating in the study do not have any knowledge about the concept of malpractice. The rate of awareness about the concept of malpractice is higher in the ones that are bachelor and have less than five years of experience. It is an anticipated result that the rate of awareness should be higher as the level of education increases; however, as the years of experience increase, the percentage of the awareness about malpractice decreases and this could be explained by the possibility of forgetting theoretical knowledge after graduation as years pass by and not following up-to-date knowledge due to increasing busy schedule. Legislative regulations such as malpractice insurance law for physicians and other healthcare staff have been on the agenda recently and as a result, awareness about faulty medical practices, which could be the reason of violence against healthcare personnel, has increased. In spite of all these developments, the rate of knowledge about malpractice of midwives who work face-to-face with their patients has been found lower than anticipated. For the reliability of the study, a short definition of malpractice has been presented to participants within the rest of the research and this definition has been used together with the concept of faulty medical practice.

The midwives have stated such personal reasons for malpractice as professional inexperience and inability, carelessness, and lack of attention and care. Apart from these, the reasons of malpractice could be systematic factors and professional inabilities. When the literature has been reviewed in terms of this aspect, similar results have been obtained. In a study of Beigi et al. which studied malpractice concepts of midwives, it has been identified that the most common reason of faulty medical practices is negligence while other reasons have been lined up as failure to obey rules, carelessness, lack of care, and professional inability [1]. In a study of Oztunc regarding the reasons of faulty medical practices carried out in gynaecology clinics, it has been determined that 47.4% of nurses and midwives has done faulty medical practices because of personal issues (carelessness, negligence, lack of knowledge, not knowing about treatment and care procedures, etc.) while 32.2% and 20.4% have carried out faulty medical practices due to institutional reasons (systematic based) and professional inabilities, respectively [12]. Similar results have been obtained in a study of Can et al. [6] The most common reason of malpractice has been found as failure to obey institutional regulations in the study of Ayoubiyan et al. which examined forensic cases related to malpractice allegations of midwives which followed by negligence, carelessness, and lack of skills [2]. In another study carried out on other healthcare professionals, being nurses, by Alemdar and Aktas, apart from personal issues such as exhaustion, the reasons for malpractice has been identified as heavy workload, prolonged working hours, staff shortage, and extra duties other than defined duty (secretarial duties, etc.) [13]. Other studies carried out on nurses have yielded similar results for malpractice [14,15].

The reasons of four different cases in this study because of which the midwives have undergone a legal action are the allegations of new-born trauma, anal sphincter injury during episiotomy, and inadequate intervention to postpartum haemorrhage (PPH) due to uterine atony (in two cases). Many of the practices within the authority and responsibility of midwives are risky practices. Therefore, it is of utmost necessity that midwives have full competency about the practices and they should also be aware about on which stage their responsibility ends and that of physicians' begin. Otherwise, the risk of ending up with a faulty practice is quite high and the results of the studies also support this situation. In their studies, Mccool et al. and Angelini & Greenvald have stated that foetal complications are within the major risk categories among the reasons of lawsuits against midwives [10,11]. In the study of Ilgili, 117 files are related to the mistakes done during vaginal births while 32 files are related to the faults during pregnancy follow-up and antenatal period [16].

Umbilical Cord Prolapse (UCP) is a rare obstetrical emergency complicating pregnancy and the incidence rate is generally between 1/162 and 1/714 [17]. In their study that examined the foetal and maternal results of umbilical cord prolapse cases between 1999 and 2002, Esinler et al. have concluded that 11 cases out of 13 developed after amniotomy. These 13 cases were followed up for vaginal birth; however, all of them were converted to emergency caesarean section and it was stated that all the new-borns were healthy [18]. The cases of umbilical cord prolapse due to ill-timed amniotomy have been examined in this study and it has been found out that the incidence rate and the results of other studies in the literature are very similar to those in this study.

Being one of the intervention types applied during delivery, episiotomy is the most common applied surgical practice in maternity wards [19]; however, current approaches in the light of last evidence based applications recommend limiting routine episiotomy practices [20]. The most common complications of episiotomy are prolonged application and third and fouth degrees of perineal lacerations and infections [21]. The fact that more than half of the midwives have encountered anal sphincter injury during episiotomy supports the results of other studies in the literature. In their study carried out in 16 countries in Latin America on primipara women, Althabe et al. have found out the rate of episiotomy as 80% and 90% in 91 hospitals and 69 hospitals, respectively [22]. Sayıner and Demirci have identified that 96.72% of primipara pregnant women and 51.85% of multipara pregnant women have been applied episiotomy and the total rate of episiotomy in all the deliveries is 70.33%. Besides, they have also found out that the common use of episiotomy increases the rate of perineal trauma among women [23].

According to the results obtained within this study, the most common faulty medical practice of midwives in the antenatal period is leaving a foreign object inside vagina during episiotomy with a percentage of 32. Furthermore, midwives come across with other faulty medical practices in the antenatal period such as aesthetical deterioration of the tissue due to faulty episiotomy, disruption of episiotomy suture, and injury of new-born due to possible stab wounds. Leaving a foreign object inside the patient body is a situation that is mostly experienced by operating room nurses and all the healthcare staff carrying out invasive practices. In their multicentre study, Ozata and Altunkan have identified that the least common faults of healthcare personnel is leaving a foreign object inside the patient body [24].

The general faulty practices that midwives encounter apart from delivery are identifying wrong vital signs, medication errors on the mother, identifying wrong or inadequate history or anamnesis from the patient and injury of the infant because of medication errors. There are several studies in the literature about general faulty medical practices of nurses and other types of malpractices have been identified among these applications in which medication errors being on the top [12,14,25].

Conclusion

In this study, the findings related to the knowledge and opinions of midwives as well as their observations and experiences they gained throughout their professional career about faulty medical applications and malpractices have been obtained. It has been determined that midwives have no adequate knowledge about the concept of malpractice and its related legislative regulations. Moreover, midwives have stated that the most common reasons for malpractice are professional inexperience and inability, carelessness, and lack of attention and care. On-the-job trainings should be increased and the staff should be directed to scientific activities while midwives should further attend to the activities of the Association of Midwives in order to raise awareness of the midwives for malpractice allegations. Midwives should be trained to know about the types of malpractices with regard to the type of clinic they work in and they should be warned against these faulty practices. More advanced evidence-based studies should be carried out regarding the field of application of midwives.

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Conflict of interest

There is no conflict of interest among the authors.

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