Article Type: Research Article Volume 1 Issue 2 - 2023



Afghan Immigrant and Refugee Women's Satisfaction with **Maternity Wards Services in Iran**

Fahimeh Khorasani¹; Mina Mobasher²; Shohreh shafiei³; Katayoun Alidousti¹*; Shahrzad Mohammadi⁴; Zahra Kouhestani⁵

¹Midwifery (MSc), Instructor, Department of Midwifery, School of Nursing and Midwifery, Kerman University of Medical Sciences, Kerman, Iran.

²Department of Medical Ethics and History, Faculty of Iranian Medicine, Kerman University of Medical Sciences, Kerman, Iran.

Corresponding Author: Katayoun Alidousti

Midwifery (MSc), Instructor, Department of Midwifery, School of Nursing and Midwifery, Kerman University of Medical Sciences, Kerman, Iran.

Fax: 03431325220;

Email: kalidousti@gmail.com; alidoosti@kmu.ac.ir

Article information

Received: Oct 23, 2023 Accepted: Dec 01, 2023 Published: Dec 08, 2023

SciBase Epidemiology and Public Health - scibasejournals.org

Alidousti K et al. © All rights are reserved

Citation: Khorasani F, Mobasher M, Shafiei S, Alidousti K, Mohammadi S, et al. Afghan Immigrant and Refugee Women's Satisfaction with Maternity Wards Services in Iran. SciBase Epidemiol Public Health. 2023; 1(2): 1008.

Abstract

Background: Pregnant refugee women are considered a vulnerable group. They are at too high risk of adverse outcomes for mother and newborns. This study aimed to determine Afghan immigrant and refugee women's satisfaction with maternity wards services.

Materials and methods: A retrospective study carried out on 317 mothers who had referred for postpartum, or abortion care to health care centers. A researcher-developed questionnaire with 32 questions in six different domains was used the level of satisfaction. Data were analyzed by SPSS software, and Spearman, Mann-Whitney, and Kruskal-Wallis tests.

Results: Results showed that the mean age of the participants was 27.55±6.24 years. 50.7% had vaginal delivery. The mean score of verbal (15.73±0.53), physical (13.82±0.47), confidentiality (5.88±0.46), and payment process (4±0) domains of satisfaction was good. There was relationship between age of participants and verbal (r=0.15; p=0.02), physical (r=0.16; p=0.02), and consent on care domains of satisfaction (r=0.17; p=0.01). And the type of delivery was related to the negligence domain (p<0.001).

Conclusions: Participants received good respectful care except in negligence and consent on care domains. Specific interventions, or plans appear to be essential to improve all domains of care.

Keywords: Respect; Maternity wards; Refugee; Immigrant; Nationality.

³Master of Biostatistics, Jiroft University of Medical Sciences, Jiroft, Iran.

⁴BS student in Midwifery, Razi School of Nursing and Midwifery, Kerman University of Medical Sciences, Kerman, Iran.

⁵Bachelor of Midwifery, Zahedan University of Medical Sciences, Razi Saravan Hospital, Iran.

Introduction

The number of refugees and asylum female proceeds to extend around the world [1]. Pregnant refugees and outcast ladies are recognized as a vulnerable group. They have a excessively expanded hazard of adverse maternal results, counting higher chance of cesarean section, and neonatal outcomes, such as stillbirth as a result of destitute basic wellbeing and more complex pregnancies [2,3]. For displaced person and asylum-seeking ladies, getting to fabulous, aware maternity care is crucial to guarantee that their particular needs are met and diminish the chance of an unfavorable pregnancy result. For immigrant and refugee ladies, pregnancy and early parenthood can exasperate destitute fundamental wellbeing, destitution and hardship. They may have fled traumatic circumstances such as struggle, torment, the vanishing or slaughtering of family and companions or the danger of sexual savagery [4]. Observing the patients' right is one of the priorities of the health and treatment care system, [5] which is, in fact the same as physical, mental and social needs that health care providers should be obliged to follow [6]. The most important rights of patients and mothers in health care centers are to be respected as a human being, to have the right to receive information about how care and treatment is done, the right to participate, and the right to have equal access to health care [7]. There's developing worldwide acknowledgment of the significant part that the arrangement of conscious maternity care has in moving forward quality of care for ladies and newborns. Considering that arrangement of viable quality care in wellbeing offices is profoundly impactful in diminishing maternal and neonatal mortality and morbidities [8]. Disregard and abuse during childbirth have been reported in low-income settings, along the continuum of care and incorporate non-dignified care, unpretentious mortification of ladies, segregation of certain bunches and physical and verbal damaging treatment of ladies. Women's discernment of poor-quality care counting insolent care at wellbeing offices during childbirth is recognized as a critical obstruction to ladies looking for care for subsequent births. This is often especially vital to address for marginalized women, such as immigrant people who involvement different vulnerabilities, live in vulnerability and as of now endure from suspended care, particularly in delicate wellbeing frameworks. Satisfaction is often seen an integral part of ethics in the medical profession. It is a positive sense and an unconditional appreciation of patients. Satisfaction includes respect for the patient's autonomy, privacy, and confidentiality of patient's information. Therefore, without regard for economic, cultural and social status, all patients should receive psychological and mental support from a nurse and physician [9].

A meta-ethnography focused on all high-income countries and illustrated that maternity encounters were lacking in Sweden and Ireland and the UK. In Ireland, refugee women experienced bigotry instead of compassionate care. In Sweden, ladies dreaded being ousted, which made extraordinary uneasiness for ladies who look for refugee [10].

Qualitative research in Lebnon hospitals appeared that the Palestinian, Iraqi and Syrian refugee women were of limited choices to clinics, care suppliers and to sorts of birth. They moreover uncovered unfavorable encounters during childbirth in healthcare offices, counting verbal and physical mishandle, insolent verbal and non-verbal communication by healthcare providers. They also detailed sub-standard care, dissent of birth companions and breaches to their security [11].

In recent decades, one of the major problems has been a lack of effective communication and satisfaction for mothers in health centers, which can be one of the important factors causing pregnancy complications. Psychological support and satisfaction for mothers during the delivery process reduces the duration of childbirth, episiotomy, cesarean section, low Apgar score, reduces postpartum depression, neonatal sepsis, and increases exclusive breastfeeding [12]. This problem can also bring about such disorders as sleep problems, post-traumatic stress disorder, neglecting health care, sexual disorders, and decreased desire to have children. Studies have demonstrated that changing the method of subsequent delivery is another result of dissatisfaction in the childbirth process [13]. As dissatisfaction in different stages of childbirth can entail significant complications according to the studies, the degree of dissatisfaction the present study carried out to determine Afghan immigrant and refugee women's satisfaction with maternity wards services in Iran.

Materials and methods

Study design and setting: The present study was a retrospective study conducted in health care centers on Afghan immigrant or refugee mothers who referred for postpartum or abortion care (up to 60 days after childbirth). Six centers were selected as clusters. Then, based on the estimated sample size, about 50 people entered the study according to inclusion criteria from each center.

Inclusion criteria included delivery or termination of pregnancy in the past 60 days, willingness to participate in the study, the ability to answer questions physically and mentally, no predisposing disease, no pregnancy morbidity, hospitalization at least 2 hours before pregnancy termination, low risk delivery without vacuum or large episiotomy, planned pregnancy, and satisfied with the gender of neonate.

Sampling was performed in October and January 2021 by available sampling in Kerman, a province in southeastern of Iran.

Sample size: By using the mean and standard deviation, the final sample size estimated 300, but we could participate 317 women in this study.

Procedure: At first, written informed consent was obtained from the participants prior to the study. The objectives of the study were explained and they were assured that the information would remain confidential. The entire questioning process was performed by the researcher.

Mothers were told that there was no need to know their names. All questionnaires were fulfilled by interviewing.

Data collection tools included two-part questionnaire, the first part of which provides for demographic characteristics such as age, number of childbirths, profession, and education of mother, and husband, etc. The second part of the research-er-constructed questionnaire sought to measure level of satisfaction, and politeness of maternity wards personnel towards mothers, which is taken from studies inside and outside the country as well as the opinions of midwifery professors [14,15]. Ten experts including three psychologists, three specialists in medical ethics, and four midwives reviewed the content of the checklist items for qualitative and quantitative content validity. At first, they reviewed each item. The requested items were modified. The reliability was 0.7 by Cronbach's alpha. This ques-

tionnaire comprised of 32 questions of six dimensions that evaluates the level of satisfaction for the mother in such areas as verbal (with eight questions), physical (with seven questions), negligence (with nine questions), confidentiality (with three questions), consent on care (with three questions) and payment process (with two questions). It was assigned point one for "no" answer, and point two for "yes". The highest score was 64, and the lowest was 32. From 32 to 43, the satisfaction was considered week (undesirable), from 44 to 54, moderate, and 55 to 64 good satisfactions.

Mothers gave yes or no answers according to the questionnaire questions, which is a reminder of experiencing treatments from the personnel, including gynecologists, female residents, midwives, nurses and service personnel in general in the last 60 days when they were hospitalized in the maternity wards.

Results

The findings demonstrated that the mean age of participants was 27.55±6.24 years. 50.7% had vaginal birth, and 46% had low income (Table 1). Table 2 shows that the mean score of verbal (15.73±0.53), physical (13.82±0.47), confidentiality (5.88±0.46) and payment process (4±0) domains of satisfaction was good according to participants. The negligence domain was at moderate level (15.13±1.16), and consent on care was in the weak level (3.91±0.30). But the overall level of satisfaction was at the desired level (score 58.48±2.164).

Spearman test showed that there was a statistically significant relationship between age and overall verbal (r=0.15; p= 0.02), physical (r=0.16; p=0.02), and consent on care (r=0.17; p= 0.01). The older the person, the greater the satisfaction rate in each of these areas. As well, the number of pregnancies had a statistically significant relationship with the physical (r=0.18;

p=0.01), and confidentiality domain (r=0.15; p=0.02). The number of deliveries had a statistically significant relationship with the negligence (r=0.18; p=0.01), and the confidentiality area (r=0.15; p=0.02). The higher the number of deliveries, the higher the satisfaction rate in each of these areas. Relationship between qualitative variables and respect domains can be seen in Table 3.

 Table 1: Demographic information of participants.

	Qualitative variables	Frequency (%)
	Vaginal	(50.7)161
Type of delivery	Abortion	72(22.7)
	Cesarean section	(26.4)84
Income	Low	(46.0)291
	Medium	44.5))141
	High	(9.5)30
Number of parity	Primi-para	32(10.09)
	2-3	164(51.73)
	≥4	121(38.17)
Age in years	18-25	79(24.92)
	26-30	154(48.58)
ycurs	>30	84(26.49)
Communication	Can speak Persian	221(69.71)
	Cannot speak Persian	59(18.61)
status	Understand Persian but cannot answer in Persian	37(11.67)
Residential	Legal	109(34.38)
status	Illegal	208(65.61)

Table 2: Mean and standard deviation of respect domains in participants.

Respect domains Types of pregnancy termination	Mean±SD							
	Verbal	Physical	Negligence	Confidentiality	Consent on care	Payment process	Total	
Abortion	15.60±0	13.91±0.26	15.42±0	6±0	3.92±0.26	4±0	58.85±0.36	
Vaginal Delivery	15.72±1.17	13.67±0.74	15.55±0.94	5.76±0.78	3.85±0.45	4±0	58.55±3.04	
Cesarean	15.88±0.43	13.88±0.43	14.44±2.56	5.88 ±0.62	3.96±0.2	4±0	58.04±3.08	
Total	15.73±0.53	13.82±0.47	15.13±1.16	5.88±0.46	3.91±0.30	4±0	58.48±2.16	

Table 3: Relationship between qualitative variables and respect domains.

	Verbal	Physical	Negligence	confidentiality	consent on care
Гуре of delivery					
Normal	1.1±74.135	1.0±69.723	15.0±58.91	3.0±86.44	7.0±7.75
Abortion	bortion 1.05±67.15		14.31±51.34	3.0±91.32	7.0±7.26
Cesarean section	1.0±48.435	1.0±48.433	14.2±44.56	3.0±96.2	7.0±84.62
Test result *	P=0.88	P=0.18	P<0.001	P=0.33	P=0.3
ncome					
Low	15.0±81.66	13.0±64.74	15.0±56.79	3.0±88.38	7.0±75.67
Medium	15.1±65.455	13.0±78.663	15.1±3.68	3.0±87.47	7.0±68.82
High	0±0	13.0±78.533	15.1±1.04	3.0±84.37	7.0±78.71
Test result *	P=0.73	P=0.07	P=0.01	P=0.52	P=0.85
ob					
Housekeeper	1.1±73.125	1.0±69.723	15.1±42.33	3.0±86.44	7.0±71.74
Employed	0±0	1.0±94.233	15.0±61.84	0±2	7.0±77.73
Test result *	P=0.17	P=0.15	P=0.44	P=0.16 P=0.6	

Discussion

The findings of this study indicated that; the overall adherence level of personnel's respect to refugee mothers, was good in maternity wards. In recent years, the Charter of Patients' Rights has been considered in health service centers, and the medical ethics education of health care workers is improved. These reasons enhance satisfaction for patients.

The World Health Organization (WHO) considers satisfaction for dignity, and status to be an important factor to improve the health of clients, while mentioning the most important rights of patients as including the right to informed consent, information confidentiality, access to health services, and their privacy [13,14].

The mean score of each dimension in participants with vaginal delivery, abortion or cesarean section was not significantly different. Women who underwent cesarean section were thought to feel better and more satisfied, but the results showed that there was no difference. It also seemed that women who had abortions felt less satisfied, because of their mental state, but it was not correct. Perhaps the staff sympathizes with the patients in these cases, and this has made the patients, realistic, and do not interfere their mental state in responding.

The study by Sadeghieh Ahari et al. revealed that overall adherence level to the patients' rights charter was 50.69% and overall patients' expectations was 85/5% which is almost in line with our findings [15]. However, it is inconsistent with the research results provided by Raee et al. that stated, the patients' rights were respected in 14.59% of the cases based on the overall score of the Patient's Bill of Rights [16].

A descriptive study found, that medical facilities were not the only factor associated with poor quality maternal care, but also feelings of neglect or neglect, solicitation, discriminatory treatment, verbal violence, and, in rare cases, physical violence are other important factors in the poor quality of maternity care by mother [17]. The present study demonstrated that the mean score of satisfaction was related to the verbal field being desirable and sufficient, as it is not in line with the study of Mesenburget al., who were satisfied with the behavior of physicians in 50%, and nurses in 45% of the cases. Women were very dissatisfied with verbal violence during childbirth [18]. In the field of "practical and physical treatment". findings indicated that mothers were satisfied with the way staff treated them, which was not in line with the studies of Kenya and Brazil [19]. Cultural differences appear to greatly contribute to the way people treat each other, especially patients. Since Iranian people are Muslims and, in the narrations, hadiths and the holy book, much emphasis is placed on how to treat others, especially patients and their nursing, so its impact can be seen in the results of this study. According to the findings, it was found that the subjects in the study were satisfied with the payment process. The payment process in this study means dissatisfaction or rudeness and wasting time in the settlement and discharge stages of the hospital, as well as receiving illegal funds from staff. The findings showed that everyone was satisfied with this part. Due to the fact that the administrative steps of the settlement are done by the treatment staff and the exact time of payment and discharge is announced to the patients in advance, so it has resulted in complete satisfaction. One study found that there was a difference between receiving an unusual fee for different hospitals [20]. Receiving extra money by the medical staff is completely illegal, and immoral, and not receiving it is a sign of adherence to the moral and legal principles of individuals. Due to the different methods of settlement and insurance coverage of individuals in different countries, so this criterion cannot be compared with other societies.

It is the right of every patient to have his/her dignity preserved. This right includes not to allow people to enter the patient's privacy, not to disclose private secrets, or not to undress the patient in front of others [21]. In the present study, the findings indicated that satisfaction with the confidentiality of services was at a good level, which was higher than Mahmoudi's study [17]. However, Raee obtained same satisfactory results [16]. Preserving the patient privacy is one of the most important ethical duties in the field of medical ethics, and has a long history in the medical world. Preserving individuals' privacy, and respecting their rights is a significant concept in human life. To preserve patient's privacy and to prevent information disclosure, hospital managers, and officials must set new strategies to reduce exposure to the patient's privacy [22].

Findings showed that women were dissatisfied in the field of care without obtaining consent, and were often not informed of the decisions made about their delivery process. This is while, it was found that no consent would be taken during the childbirth except for surgeries. These findings are in line with the findings from previous studies in which, the patient's right to decide, and choose freely was found to be undesirable [16,23]. Respecting the patient's autonomy, and involving them in the decisions, will increase their cooperation, especially in the childbirth process, thus improving the care process, and reducing complications [24]. One of the strongest possible reasons could be the inconsistency of Afghan language with Persian. Afghan pregnant woman, and staff did not understand each other, maybe sufficient, and timely information was not received by Afghan pregnant woman, so she felt that due to different nationality it has been disrespected, and neglected in care.

The findings indicate that the field of neglect has received a moderate score, and this is in line with the results of a Azimi study, who found that 67.71% of complaints related to pregnancy, and childbirth were related to negligence [25]. Poor quality, and neglect of maternal, and infant care can lead to maternal death, stillbirth, and infant death, as well as increase the risk of acute, and chronic clinical, and mental illness in surviving women.

Therefore, the weaknesses of maternity ward care should be examined in order to improve the health of mother and baby by planning to solve problems.

Conclusion

It was found that, the level of satisfaction towards refugee and immigrant Afgan mothers was almost appropriate in maternity wards, however, it seems that interventions, and special programs are needed in some domains.

Declarations

Ethics approval and consent to participate: This manuscript was derived from a project with code No. 97000716 and was approved by the Ethics Committee of Kerman University of Medical Sciences, Iran (the code of ethics No. Kmu.ac.ir.1397.481).

Written informed consent was obtained to enter the study and participants were easy to withdraw the study whenever they were willing. At the request of the ethics committee, the study was conducted in accordance with the Declaration of Hel-

sinki and Ethics Publication on Committee (COPE). Special codes were used for each of the participants to ensure the information confidentiality.

Consent for publication: Not applicable.

Availability of data and materials: The datasets generated and/or analyzed during the current study are not publicly available due [Hospitals and Maternity wards permission is needed] but are available from the [corresponding author] on reasonable request.

Competing interests: The authors of this study state that there is no conflict of interest.

Funding: This study did not receive any specific funding from any community funding organization, commercial or non-profit sectors.

Authors' contributions: The authors, F.KH, M.M, SH.SH, SH.M, Z.K & K.A contributed with the project, and data interpretation, the writing of the article, the critical review of the intellectual content, and with the final approval of the version to be published. KA contributed equally to writing and revising the manuscript and approved the final manuscript.

Acknowledgements: The authors appreciate all vulnerable pregnant women who generously participated in this study.

References

- Kingsbury DM, Chatfield SL A qualitative metasynthesis of published research exploring the pregnancy and resettlement experience among refugee women. Qual Report. 2019; 24: (2)242-257.
- 2. Bollini P, Pampallona S, Wanner P, Kupelnick B Pregnancy outcome of migrant women and integration policy: a systematic review of the international literature. Soc Sci Med. 2009; 68(3): 452-461.
- McKnight P, Goodwin L, Kenyon S A systematic review of asylumseeking women's views and experiences of UK maternity care. Midwifery. 2019; 77: 16-23.
- Kalt A, Hossain M, Kiss L, Zimmerman C Asylum seekers, violence and health: a systematic review of research in high-income host countries. Am J Pub Health. 2013; 103(3): 30-42.
- Zandiyeh M, Pakro Payravandi A, Imani B, Ahmadi S, Roshanaei
 G. Quality of compliance of patient's rights in operating rooms of Hamadan's educational hospitals in 2012. Pajouhan Scientific Journal. 2015; 13(2): 21-3.
- Akbari L, Bagheri M, Baghersad Z, Aseman Rafaat N. Evaluation of the observance of patients' rights in the selected hospitals of Isfahan University of Medical Sciences. Iranian Journal of Medical Law. 2015; 9(33): 175-96.
- Bayrami R, Pezeshki MZ, Ebrahimi M. A study of The influence of implementing patients right's workshop for midwives on the women's viewpoint about parturient rights satisfaction. Journal of Nursing and Midwifery Urmia University of Medical Sciences. 2007; 5-93(3): 101.
- Bhutta ZA, Das JK, Bahl R, Lawn JE, Salam RA, Paul VK, et al. Can available interventions end preventable deaths in mothers, newborn babies, and stillbirths, and at what cost? Lancet. 2014; 384(9940): 347-70.
- Shimoda K, Leshabari S, Horiuchi S. Self-reported disrespect and abuse by nurses and midwives during childbirth in Tanzania: a cross-sectional study. BMC Pregnancy Childbirth. 2020; 20: 584.

- Frank G. D, Fox D, Njue C, Dawson A. The maternity experiences of women seeking asylum in high-income countries: A metaethnography. Women and Birth. 2021; 4(6): 531-539.
- Kabakian-Khasholian T, Makhoul J, & Ghusayni A. "A person who does not have money does not enter": a qualitative study on refugee women's experiences of respectful maternity care. BMC Pregnancy Childbirth. 2022; 22: 748.
- Sethi R, Gupta S, Oseni L, Mtimuni A, Rashidi T, Kachale F. The prevalence of dissatisfaction and abuse during facility-based maternity care in Malawi: evidence from direct observations of labor and delivery. Reproductive health. 2017; 14(1):111.
- 13. Naghizadeh S, Sehhati F, Atari B, SH, Ebrahimi H, Egdampour F. Assessment and Comparison of Mothers' Satisfaction with PHysical Care During Labor, Delivery and Postpartum Care in Teaching and Non-Teaching Maternity Hospitals of Tabriz. Woman & Study of Family. 2011; 3(11): 129-141.
- Orpin J, Puthussery S, Davidson R, Burden B. Women's experiences of dissatisfaction and abuse in maternity care facilities in Benue State, Nigeria. BMC pregnancy and childbirth. 2018; 18(1): 213.
- Saeed Sadeghieh A, Zahra T, Shahram Habib Z, Oktay Y, Vadod N, Maryam Namadi V. Satisfactioning patient's rights and expectations of patients in hospitals of medical sciences university of Ardabil in 2012. Journal of Sabzevar University of Medical Sciences. 2015; 22(3): 472.
- Raee Z, Abedi H. Nurses' Perspectives on human dignity of hospitalized patients. Iran Journal of Nursing. 2017; 29(104): 55-65.
- Babamahmoodi F, Meftahi M, Khademloo M, Hesamzadeh A. Observation of patient's right charter in Mazandaran teaching hospitals: patients view. Journal of Medical Ethics and History of Medicine. 2011; 4(4): 37-44.
- 18. Mesenburg MA, Victora CG, Serruya SJ, de León RP, Damaso AH, Domingues MR, et al. Dissatisfaction and abuse of women during the process of childbirth in the 2015 Pelotas birth cohort. Reproductive health. 2018; 54 (1): 15-8.
- Abuya T, Warren CE, Miller N, Njuki R, Ndwiga C, Maranga A, et al. Exploring the prevalence of dissatisfaction and abuse during childbirth in Kenya. PloS one. 2015; 10(4): 0123606.
- McMahon SA, George A. S Chebet, JJ, Mosha, I. H., Mpembeni R. N, & Winch PJ. Experiences of and responses to dissatisfactionful maternity care and abuse during childbirth; a qualitative study with women and men in Morogoro Region, Tanzania. BMC pregnancy and childbirth. 2014; 14(1): 268.
- 21. Ethi R, Gupta S, Oseni L, Mtimuni A, Rashidi T, Kachale F. The prevalence of dissatisfaction and abuse during facility-based maternity care in Malawi: evidence from direct observations of labor and delivery. Reproductive health. 2017; 14(1): 111.
- Shojaei S, Shirvani R, Dehghani F, Razavian F, Mirizadeh M, Heidarifar R. An Investigation of Patients' Satisfaction during Their Treatment Process Following Implementation of Health System Reform Plan at the Selected Educational Treatment Centers of Qom University of Medical Sciences. Qom Univ Med Sci J. 2019; 12 (12): 70-78.
- Dehghani F, Abbasinia M, Heidari A, Mohammad Salehi N, Firoozi F, Shakeri M. Patient's view about the protection of privacy by healthcare practitioners in Shahid Beheshti Hospital, Qom, Iran. Iran Journal of Nursing. 2016; 28(98): 58-66.
- Zulfikar F, Ulusoy MF. Are patients aware of their rights? A Turkish study. Nursing Ethics. 2001; 8(6): 487-98.

 Azimi KH, Poorbakhtiar M, Taghizadeh Z, Soltani K, Ghadipasha M, Daneshparvar H. A Survey on Various Types of Medical Malpractice in Relation with Pregnancy and Delivery, Referred to Relevant Commissions of the Iranian Legal Medicine Organization. Ir J Forensic Med. 2017; 23(2): 132-141.