

Adherence To Immediate Postpartum Care Guidelines Among Jordanian Health Care Professionals: Narrative Review

Oymah Zain Alddin Al-Rajabi^{1*}, Prof. Lubna Ahmad Abushaikha²

¹PhD.c, The University of Jordan Lecturer at Rufidah Al-Aslamia College of Nursing Amman, Jordan Emails:omymahr@yahoo.com, <https://orcid.org/0000-0002-0341-0350>

²The University of Jordan Department of Maternal and Child Health Nursing, Emails: abushaikha@ju.edu.jo, <https://orcid.org/0000-0003-3243-2791>

*Corresponding Author: Oymah Zain Alddin Al-Rajabi, PhD.c

¹PhD.c, The University of Jordan Lecturer at Rufidah Al-Aslamia College of Nursing Amman, Jordan. Emails:omymahr@yahoo.com, Doi: 10.47750/pnr.2022.13. S05.173

Abstract

Purpose: This study aims to integrate evidence on adherence to immediate postnatal care provided to women after birth among health care professionals, and to identify gaps in the previous studies for building new knowledge for further researches.

Design: A narrative literature review. Electronic database searching strategy was used, including Web of Sciences, SAGE, CINAHL, PubMed and Jordanian Database for Nursing Research databases were used to search the literature.

Findings: A total of 320 articles were retrieved. After duplicates removal, 200 articles were screened for titles and abstracts. There were 80 relevant articles that underwent full-text screening, of which 32 were found eligible to be included in the review. The studies were summarized under 3 themes; adherence to immediate postpartum care among health care professionals (n=24), Adherence to IPPCGs in Arab countries (n=5), Adherence to IPNCGs among healthcare professionals in Jordan (n=3).

Paper type: Literature review

Keywords: Immediate, Postpartum care, Guidelines, Adherence

INTRODUCTION

The postpartum period is a critical time of women's life stage; many changes occur, including physical, emotional, and psychosocial. (WHO, 2018). It started from the first six weeks after childbirth (Lowdermilk, 2016 p.473 , divided into three periods; immediate" from birth until 24 hours of life", early" two to seven days after birth" and late"8-42 postnatal days". (WHO, 2010b, Lowdermilk, 2016). Globally, postnatal care is neglected; nearly 50% of maternal deaths occur within 24 hours, most of them (66%) occurred in the first weeks after childbirth. About 2.8 million newborns died in the first month, and one million babies died on the first day. Most of maternal and neonatal death occurs in low- and middle-income countries (WHO, 2018). Utilization of postnatal care (PNC) in developing countries mainly is low, only one-third of women utilized PNC visits (Langlois et al., 2015).

Minimizing the maternal mortality ratio to less than 70 per 100,000 live births by the end of 2030 was the primary World Health Organization (WHO) objective of sustainable development goal (SDGs).(WHO,2016).Recently, WHO, updated global recommendations on postnatal care for mothers and newborns stressed the timing(the first 24 hours to all mothers and babies regardless place of birth , repeated before institutional discharge), content of postnatal care for mothers and newborns with a special focus on resource-limited settings in low- and middle-income countries.(WHO,2013).

Many preventable complications occurred in these periods as; hemorrhage, postpartum depression, headache, perineal and cesarean wound pain, breast engorgement. DVT, sore nipples mastitis, postpartum anxiety & Psychological distress, urinary tract infections (Fogel, 2017; de Groot et al., 2018; Obrochta et al., 2020). Despite the variety of international postpartum guidelines, still the adoption for Immediate postpartum guidelines adherence (IPPCGs) suboptimal. (Boucar et al., 2014 ; Mon et al., 2018 ; Sisay et al., 2019 ; Benova et al 2019 ; Tessema et al., 2020). Consequently, high maternal mortality rates still exist in low and middle-income countries (Boucar et al., 2014). This literature review aims to integrate evidence on adherence to immediate postnatal care provided to women after birth among health care professionals, and to identify gaps in the previous studies for building new knowledge for further researches.

METHODS

Search Strategy

An extensive electronic data bases was conducted. Science Direct, MEDLINE, CINAHL, EBSCO, PUBMED was included for searching relevant articles. PRISMA, Moher et al., 2009 flowchart steps (identification of relevant articles, screening for eligibility, inclusion of related studies) Searching process was by three researchers, from August 2021 till January 2022. The following keywords were used in the searching process: postnatal, care, immediate, compliance, adherence, barriers, facilitators, clinical guidelines, WHO, Health professional and Jordan. These words were searched separately and in (MeSH) terms in combination with each other include subject heading. All studies, either Quantitative or qualitative, with different samples and designs, full texts, English language, published between 1995 and 2020, were include. Searching review considering three main themes. (Adherence to immediate postpartum care guidelines among health care professional either; international, Arab countries, and Jordan), as shown in (Figure 1).

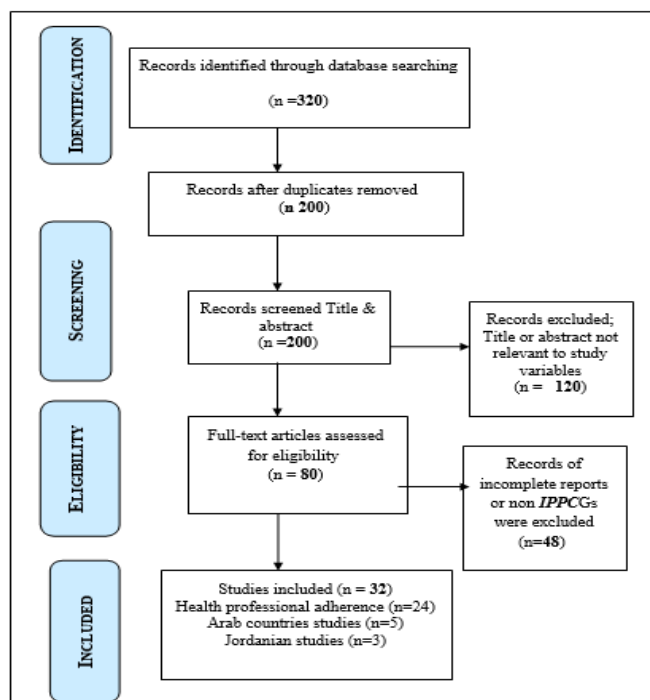


Figure 1. PRISMA Flow Diagram Moher et al., 2009

Inclusion criteria

All full texts, English language, published in electronic data base from 1995 until January 2022, quantitative and qualitative text research studies were included in this review.

Exclusion criteria

Any incomplete studies in the form of editorials, opinion pieces, and conference abstracts have been excluded.

RESULTS

A total of 320 articles were retrieved. After duplicates removal, 200 articles were screened for titles and abstracts. There were 80 relevant articles that underwent full-text screening, of which 32 were found eligible to be included in the review. (Figure 1- flowchart). The studies were summarized under 3 themes; adherence to immediate postpartum care among health care professionals (n=24), Adherence to IPPCGs in Arab countries (n=5), Adherence to IPNCGs among healthcare professionals in Jordan (n=3). Different research methodology were used to measure adherence to immediate postnatal include; qualitative (studies, descriptive, phenomenology, n=2), quantitative (cross sectional, n= 12, observational, n=5), mixed methodology (cross sectional, descriptive & qualitative, Q methodology, n=3), quality of care through indicators=8, literature review (systematic, n=1, integrative, n=1). Diversity in data collection was revealed. structured interview (n= 10), checklist (n= 7), self-reported questionnaires (n=7), audit tool by indicators (n= 3), focus group discussions (n= 1). Different electronic data base for reviewing studies; PubMed, CINAHL, Embase, and healthcare journals. Various Samples & sampling procedures were used. Simple random (n=1), convince (n= 4), purposive (n= 10), nominal groups (n=1), for choosing health care professional, while multistage cluster sampling for institutional (n= 3), different countries were included in this review study as shown in (Table.1).

Adherence to IPNCGs worldwide among health professionals

Health care professional's adherence to immediate postpartum care guidelines was assessed by different methods. A systematic review study by Miller et al., 2016 revealed, non standardized, non-evidence based care, suboptimal non adherence to guide lines world widely, either suboptimal in low-income and middle-income described as too little, too

late(TLTL), or too overused of unnecessary recommendation as routine in middle & high income during immediate postpartum period as uterotonics ((India and Syria) or antibiotic in (Pakistan, Guatemala, India, Kenya, and Zambia). Similar result, suboptimal use of IPPCGs was found Reid & Garcia, 2020 systematic review study. Another recent, 3 international studies measured directly the health care provider's adherence to IPNCGs by structured check list, observational cross-sectional study design, revealed Low adherence level for standardized IPNCGs evidence-based guidelines as whole items (Mirzaei et al., 2016; Haftu et al., 2018; Kebede et al.,2021).Other evidence for non adherent to IPPCGs were revealed by cross sectional studies like (Fort, 2012; Mohammad et al., 2014; Zulu & Chanda, 2017; Moazzem Hossain et al 2018; Khader et al.,2018 ; Benova et al.,2019 ; Pugliese-Garcia et al., 2020).From mothers points of view , non adherence to standardized guidelines was reflected by non-satisfied levels reported by qualitative & quantitative studies . (Shabila et al.,2015; Zulu & Chanda, 2017; Crexious et al., 2018; Alyahya et al 2019). On the contrary, other studies revealed high adherence to standardized care by health care professionals by Jorge et al.,2017 study in Ibarra (northern Ecuador) country, and (Wickramasinghe et al., 2019; Alkasseh et al 2020). Furthermore, assessing adherence to IPPCGs by quality indicators studies, also shown Non evidence-based care , low adherence levels. (Ilesanmi &Akinmeye, 2018; Biswas et al., 2019; Rios-Zertuche et al.,2019 ; Millogo et al.,2020; Pindani et al.,2020). Evidence from literature for association between health care professionals and demographic variable as marriage, presence of birth assistant at labour room, availability of postpartum guidelines, training for basic emergency obstetric and newborn care (BEmONC) , highly monthly income ≥ 10001 Ethiopian birr, work experience ≤ 6 years was revealed.(Kebede et al., 2021) .

Diversity in adherence level to IPPCGs was shown by different studies. High to moderate adherence to physical care either for mother or baby as a technical competencies of health care professionals, neglected mother needs either physical, counseling, educational or psychological as recommended by updated WHO global recommendations on postnatal care for mothers and newborns.((Kebalepile, T.M., 2001; Fenwick et al, 2010 ; Naghizadeh et al.,2014; Shabila et al.,2015; Mirzaei et al.,2016; Zulu & Chanda,2017; Jorge et al.,2017 Haftu et al., 2018; ; Panth & Kafle, 2018; Wickramasinghe et al., 2019 ; Biswas et al., 2019). Evaluation of health care professionals' adherence to IPPCGs is varying from method to other. It was perceived as a high quality of care from mothers satisfaction, but non-evidence-based according to standardized guidelines as shown by Iranian study. (Mirzaei et al.,2016).

Increasing adherence and adoption of IPPCGs in practice area can be achieved by interventional program as recommended by previous studies. (Syed et al.,2006; Boucar et al., 2014; Colet et al.,2020).

Adherence to IPNCGs among health professionals in Arab region

Limited studies were conducted in Arab countries. A cross-sectional study design in **Gaza Strip, Palestine**, using self-administered questionnaire, surveyed 200 postnatal women, in 4 governmental, revealed high women satisfaction level with care provided by midwives. But low adherence level to guidelines protocol for postnatal education & psychological support provision. (Alkasseh et al 2020). The same results, non adherence to standardized care were found in Iraq by Moazzem Hossain et al 2018 cross sectional study, and Shabila et al.,2015, explorative, Q-methodology study. furthermore, low adherence for immediate postnatal care guidelines in content of care, no standard protocols or packages of care defining the components, and content of post-partum and post-natal, only several guidance documents. These results were reported by 2 Egyptian studies. (Fort, 2012; Pugliese-Garcia et al., 2020).

Adherence to IPNCGs among health professionals in Jordan

Despite the Jordan being one of the most modern countries in the Middle East, still postnatal care services are neglected and substandard. A Descriptive, phenomenological, Qualitative study design used 12focus group discussions (FGDs) of pregnant and postpartum women in three major hospitals in Jordan.Postpartum care was neglected by mothers themselves, they seeking it for complicated cases and newborn health (Alyahya et al, 2019). Furthermore, adequate quality of care, non-evidence-based practice accordance to WHO (2016) guidelines was revealed by a cross-sectional, observational design study.(Khader et al.,2018), while non availability of health care professional at postpartum wards was reported by a descriptive cross-sectional design, conducted on 298 postpartum women at 4 maternal and child health centers in Al-Mafraq city. (Mohammad et al., 2014).

DISCUSSION

At all levels, international, regional, and national, there was postpartum care negligence. Low or lacking guidelines' adherence among health care professional world widely. Non-evidence-based practice for immediate postpartum care. Psychological aspect of postpartum care is highly neglected. Studies were primarily descriptive, limiting quality. More in depth qualitative researches are needed to give a clear picture about the current care provided at practice area from both perspectives, clients and health care providers. Extensive effort is needed for raising awareness among women and health care professionals about IPPCGs. by several interventional strategies, among these; training (workshops, seminars, conferences, etc), provide education resources& access, educational meetings, small group education, otherwise, activation the role of mass media , email reminders, active learning from experts, opinion leaders, individualized feedback and group performance audit, quality circle, educational outreach visits, administrative support, creating educational culture in the health organizations. Interventional, Training programs are needed to close the gap between immediate postpartum services provided and that recommended by the WHO. High quality researches with different designs and samples are needed to improve and sustain knowledge, and guideline usage among health care professionals.

IMPLICATION TO NURSING

Finding of this review study can be a basis for further studies, using different methodological. Policy makers are invited to develop strategies for improving implementation of evidence-based recommendations by different target audiences, including health care professionals and the public. Administrators need to develop monitoring system, tools for measuring guideline adherence among health care professionals, training courses for raising awareness. Nurse educators should integrated the culture of standardized care in nursing and midwifery educational curricula. Raising awareness among nursing and midwifery students about the benefits of clinical practice guidelines for patients, healthcare professionals, and healthcare system in the context of maternal care.

CONCLUSION

Despite the extensive effort by different international health organizations, especially WHO, developing and disseminates evidence-based guidelines and made major efforts to increase awareness of the guidelines, adherence to clinical guidelines still suboptimal. multidisciplinary methods for creation, maintenance, and continued improvement of guidelines in conjunction with social, economic, and political change are all necessary. Updated to guidelines is needed to go with local priorities.

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Table 1. Literature review matrix

Authors	Country	Study design	Sample/ Data collection	Key results
Kebede et al., 2021	Northwest Ethiopia	A multicenter observational cross-sectional	406 healthcare providers structured interview & direct checklist	Low adherence level as a whole (42.4%) High adherence level associated with demographic variable; marriage, presence of birth assistant at labour room, availability of postpartum guidelines, training for basic emergency obstetric and newborn care (BEmONC) , highly monthly income ≥10001 Ethiopian birr, work experience ≤ 6 years.
Haftu et al., 2018	Ethiopia	Institution based cross sectional, Observational	403 health care professional, (260 midwives &143 nurses) simple random data collection: face to face interview and direct observation by check list	Low adherence as a whole (22.8%). but variation related to specific standardized care, high to moderatr regards; weight, giving Oxytocin, TTC (91.1%, 85.1%, 69.2%.) respectively. Low adherence for neonate length, head circumference measurement, and giving BCG below 50% & documenting provider name (22.8%) Midwives higher adherence than nurses No significant relationship between staff demographic variables and their IPPCGs adherence.
Jorge et al.,2017	Ibarra, Ecuador	Descriptive Observational, cross-sectional cohort	125 postpartum Interview at e San Vicente de Paul Hospita	High Compliance to standards and protocol as positive participants perception for normal delivery & providing education ... versa for dystocic deliveries.
Mirzaei et al.,2016	Iran	descriptive, cross sectional observational	411 mothers selected via multistage sampling	High mother satisfaction with technical, training, counseling & communication skills of midwives

			from 16 urban health centers in Mashhad, structured interviews with questionnaire for mothers observation checklist for midwives.	from women's perspective, but non-evidence-based according to standardized guidelines. This discrepancy could be due to the lack of mothers' knowledge about IPPCGs guidelines
Benova et al.,2019.	sub-Saharan Africa	cross-sectional study using Demographic and Health Survey data	33 countries. between 2000-2016	The suboptimal levels of postpartum checks in health facilities
Fenwick et al, 2010	Australia	cross-sectional	2699 women. self-report survey	Good adherence to counseling & assistant in baby care and their immediate physical recovery. Low adherence to emotional care and information on maternal health needs, immunisation and contraception, preparation for motherhood
Naghizadeh et al.,2014	Iran	descriptive-comparative study	454 women in Alzahra, Talegani (teaching) and 29Bahman (nonteaching) Tabriz/Iran hospitals self report survey	For both mode of delivery, high' satisfaction was in the physical and the lowest for information (counseling), and psychological aspect.
Ilesanmi and Akinmeye, 2018	Nigeria	. quality indicators exploratory cross-sectional survey	57women purposive sample mothers in postnatal clinic and wards data collection: 2 phases 3 checklists for evaluating the facility resources and quality of postnatal care & one questionnaire to evaluate mothers' satisfaction in both clinics,	Inadequate resources for PNC. Dissatisfaction with care provided at postnatal ward, but good satisfaction with care received in the postnatal clinic.
Wickramasinghe et al., 2019	Sri Lanka	cross sectional survey	1300 normal birth mothers, structured interview with questionnaire	higher level for initiation of breast feeding immediately following delivery, practice of KMC in the ward, getting health advices from doctors or midwives and provision of adequate pain relief during episiotomy suture,
Zulu & Chanda , 2017	Zambia	Cross sectional	Purposive sample of 202 mothers Data collection: structured interview with questionnaire on a five-point Likert scale	Low adherence to guidelines reflected by low mothers' satisfaction regarding health counseling
Panth & Kafle, 2018	Nepal	Descriptive, cross-sectional	purposive 178 postnatal mothers Data collection: face-to-face , semi structured interview	High mother satisfaction with staff competencies "skill, but not for counseling role.
Biswas et al., 2019	Bangladesh	Quality improvement project cross-sectional observational	228 cases of MNH services Data collection: audit tool by indicators checklist for	Non evidence-based care, non adherence Variation in adherence to clinical guidelines , high related prevention of infection,and newborn care,moderate for maternal complications management,low for immediate potnatal care in general
Millogo et al.,2020	Burkina Faso and Côte d'Ivoire	Quality improvement	627 health workers, 532women. Direct observation of healthcare workers' practices audit tool by indicators for Quality of maternal and newborn care measurement.	Low adherence at a whole, very low for hand hygiene before examination 6.71% except for thermal management of newborns
Pindani et al., 2020	Malawi	Quality indicator Cross-sectional, descriptive quantitative	58 midwives, Data collection: A structured questionnaire, an observation tool and a facility checklist	Low adherence to standardized care for immediate postpartum either physical, communicating, counseling or psychological.
Colet et al.,2020	Kazakhstan	Improvement project	Quality indicators measured through audit tool consists of seven criteria	Implementation of evidence-based IPPCGs , interventional program help in increasing adherence , increasing knowledge of nurses and midwives on evidence-based postnatal care.

				Disparities in adherence levels the Higher document postnatal plan and psychological assessment (100%), followed breast feeding assistant and counseling , while decrease adherence from baseline to follow up regards; discuss prevention of sudden infant death syndrome, provides information about bottle feeding.
Syed et al.,2006	Bangladesh	Improvement program	30-cluster sampling method. 2 surveys; questionnaire, from mothers with, pre and post interventional cross sectional survey Analyzing the changes in health knowledge behaviours and practices from 2002 to 2004	Immediate post natal care interventional program is effective in increasing clinical guidelines adherence among staff according to mothers points of view.
Rios-Zertuche et al.,2019	Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and the state of Chiapas in Mexico	quality indicators for reviewing the institutional quality of care in low- and middle-income countries.	January-October 2014 Data collection: check-lists for each facility level and type of care via electronic abstraction tools	12 662 medical records were revised. variations of quality of care between and within countries low level of adherence regarding Routine antenatal care (ANC), immediate neonatal care and postpartum contraception, 68.8% in Costa Rica to 5.7% in Guatemala Less than 25% of obstetric and neonatal complications were managed according to standards in all countries.
Boucar et al ., 2014	Niger and Mali	Interventional Quality improvement program indicators.	78 facilities	Rapid improvement in compliance with standards for post-partum haemorrhage prevention and Essential Newborn Care reduction in postpartum haemorrhage effort based on common objectives, local ownership and shared learning
Miller et al., 2016	All evidence-based guidelines for antenatal, intrapartum and postpartum care.	Systematic review		Non adherence to guide lines world widely , either suboptimal in low-income and middle-income described as too little, too late (TLTL), or too overused of unnecessary recommendation as routine in middle, high income as uterotronics during the postnatal stay at the hospitals in all countries (India and Syria) , or antibiotic during immediate postnatal stay in hospital (Pakistan, Guatemala, India, Kenya, and Zambia wa)
Reid & Garcia, 2020	search of PubMed, CINAHL, Embase, and African healthcare journals	Integrative review conducted 2000-2018	Twelve qualitative, quantitative, or mixed-methods studies (quality good to poor) from seven countries	Suboptimal use of guidelines Training is needed Research is needed to improve and sustain knowledge, counselling, and guideline usage among providers to address neonatal mortality.
Crecious et al., 2018	Zambia	Qualitative, descriptive, phenomenology	purposive sample of 30 participants in two General Hospital of Zambia data collection: interview for 12 to 40 minutes Data analysis: thematic analysis	poor adherence to immediate postnatal guidelines for items of counseling for mother & infant care, physical examination,psychological support
Roetsa et al.,2018	Kenya	qualitative descriptive	nominal group	capacity building, data management, quality assurance, human resource management, supportive supervision, nd coordination.
Kebalepile, T.M., 2001. Master thesis	Northern Botswana	Mixed cross sectional descriptive qualitative and quantitative survey	65 registered nurse midwives. Data collection: semi-Structured interview	Good knowledge but poor practice for breastfeeding initiation ,postnatal care follow up as home visits and exercises poor knowledge in management of post-delivery severe anaemia., examination of baby , follw up care

Jhpiego et al, 2017	Afghanistan	Mixed cross-sectional national facility survey, quantitative and qualitative	32 skilled birth attendants (SBAs) (24 health facilities) Data collection: health facility inventories, record reviews, interviews observations of antenatal, intrapartum, and early postnatal care	Poor adherence to clinical guidelines, despite availability of needed resources, "administration of a uterotonic; skin-to-skin contact, initiation of breast feeding, hand washing by health care providers, non effective communication, poor knowledge about prevention, detection, and management of obstetric and newborn complications.
Alkaseh et al 2020 Arab	Gaza Strip, Palestine	cross-sectional self-administered	200 postnatal women, Convenience 4 governmental hospitals in the Gaza Strip,	High quality perceived by women as provided by midwives, but according to guidelines protocol rated low for postnatal education, communication, and psychological support provision.
Moazzem Hossain et al 2018	Iraq	cross-sectional	7,222. Mothers household survey two-stage cluster sampling of 25 primary sampling units, sampled 24 households per sampling unit in 12 districts	low post natal care associated with rural, uneducated and poor %41 of mothers starting skin-skin %33, breast feeding associated with poor women in percent three times more rich women due to access to infant formula
Shabila et al., 2015	Iraq	Explorative design. Q-methodology	37 women of different educational and socioeconomic status who had given birth during the previous 6 months	From women points of view: poor information about breastfeeding, lack of emotional support, lack of encouragement and response to personal questions and poor attention to the mothers poor communication, inadequate staffing, negative attitude of the providers and poor hygiene aspects of the facilities and tools.
Fort, 2012	Egypt	demographic & health survey 2005 and 2008		Low adherence for immediate postnatal care guidelines in content of care no standard protocols or packages of care defining the components and content of post-partum and post-natal only several guidance documents..
Pugliese-Garcia et al., 2020	Egypt	cross-sectional	multistage cluster sampling data collection: five Demographic and Health Surveys in 1995, 2000, 2005, 2008, and 2014	Increased institutional delivery from from 35 to 87% , women delivering with a skilled birth attendant from 49 to 92% poor quality, including insufficient resources, perverse incentives, poor adherence to standardized IPPCGs..
Alyahya et al 2019	Jordan	Qualitative Descriptive, phenomenological	12 focus group discussions (FGDs) with pregnant and postpartum women in three major hospitals in Jordan.	Neglected postnatal care by mothers 'themselves. They seek it only for complicated cases and newborn immunizations & caring, private care were preferred for longer consultation time, a higher quality of services, better interpersonal and communication skills of healthcare providers, better treatment, more advanced equipment and devices, availability of female obstetricians, and more flexible appointment times.
Mohammad et al., 2014	Jordan	descriptive cross-sectional design. Women	298 postpartum women 4 maternal and child health data collection: centers in Al-Mafraq city, Self-reported	Neglected immediate post-partum care by health care professionals. 64.1% of women reported non availability of health care professional at postpartum wards.
Khader et al., 2018	Jordan	Cross-sectional, observational design.	32 hospitals from three regions of the Jordan (north, middle, south) including different sectors (MoH hospitals, RMS hospitals, private hospitals University hospital).	Adequate quality of care, Non evidence-based practice accordance to WHO (2016) guidelines, shortages & lacked of trained skilled, competent birth attendants, lack of standardized early postnatal care, and lack of necessary supplies, drugs, equipment, and resources during labor and the early postnatal care, lack of pivotal protocols, policies, and guidelines necessary for optimal care especially in south region.