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Supplementary Materials

Supplemental Table 1. Search Strategy

Criteria	Embase 1974 to October 5, 2021 (via Ovid.com)	Ovid MEDLINE ALL 1946–October 5, 2021 (via Ovid.com)	Ovid EBM Reviews: Cochrane Central Register of Controlled Trials Cochrane Database of Systematic Reviews 2005–October 5, 2021 (via Ovid.com)
Population	exp puerperium/ or puerperium or postpartum.ti,ab. or exp postpartum/ or postpartum or ((iud or iucd or ius) and insertion and (postpartum or puerperium)) or (((iud* adj3 insertion) or (iucd* adj3 insertion)) and (postpartum or puerperium)) or (((intrauterine device adj3 insertion) or (intrauterine contraceptive device adj3 insertion)) and (postpartum or puerperium))	exp puerperium/ or exp postpartum period/ or (postpartum and period).mp. or postpartum period.mp. or postpartum.mp. or postpartum.ti,ab. or post partum.ti,ab. or (post and partum).mp.	(puerperium or postpartum or postpartum).ti,ab,kw.
Intervention	exp intrauterine contraceptive device/ OR intrauterine contraceptive device OR (iud OR intrauterine device OR intrauterine contraceptive device OR iucd).ti,ab.	exp Intrauterine Devices/ OR (iud OR intrauterine device OR intrauterine contraceptive device OR iucd).ti,ab.	(Iud or intrauterine device or intrauterine contraceptive device or iucd or intrauterine devices).ti,ab,kw.
Limits	(limit to english language AND limit to yr="2020 -Current") NOT (conference abstract or editorial or letter or note).pt.	(limit to english language AND limit to yr="2020 -Current")	(limit to english language AND limit to yr="2020 -Current")

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Supplemental Table 2. Publications Included in the Systematic Literature Review (N=133)

First author, publication year	Study design	Setting	Country	Time period	Primary aim	Age inclusion criteria	Subgroup	Total sample size
Higher-income group: High								
Boydell, 2020	Cross-sectional	Multicenter (n=2)	UK (Scotland)	Jul 2017–Sep 2018	Clinical outcomes	Any age	Overall	35
Braniff, 2015	RCT	Single center	Australia	Jan 2011–Dec 2012	Insertion time	Any age	Insertion time: 10 min vs 6 wks	44
Chen, 2010	RCT	Single center	US	May 2007–Oct 2008	Insertion time	Adult	Insertion time: 10 min vs 6–8 wks	102
Cohen, 2016	Prospective observational	Single center	US	Jan 2010–Dec 2011	Effectiveness	Adolescent	Overall	82
Cole, 2019	Retrospective	Single center	US	Oct 2016–Mar 2017	Insertion technique/provider	Any age	Overall	116
Colwill, 2018	Retrospective	Single center	US	Apr 2014–Mar 2015	Clinical outcomes	Any age	Delivery type: VD vs CS	210
Cooper, 2020	Non-randomized intervention	Multicenter (n=2)	UK (Scotland)	Jan 2017–May 2019	Patient satisfaction	Any age	Overall	379
Dahlke, 2011	RCT	Single center	US	Jan 2009–Dec 2013	Insertion time	Any age	Insertion time: 10 min vs 10 min–48 h	30
Eggebroten, 2017	Prospective observational	Single center	US	Oct 2013–Feb 2016	Utilization	Adult	IUD type: Hormonal vs copper	211
Gallagher, 2019	Cross-sectional	Multicenter (n=NR)	UK (Scotland)	NR	Promotion	Adolescent	Overall	195
Goldthwaite, 2017	Prospective observational	Multicenter (n=2)	US	May 204–Aug 2015	Insertion technique/provider	Any age	IUD type: Hormonal vs copper	123
Gonzalez, 2020	Prospective observational	Multicenter (n=2)	US	Dec 2013–Jun 2017	Clinical outcomes	Adult	Overall	93
Gurney, 2018	Prospective observational	Single center	US	Apr 2015–Feb 2017	Clinical outcomes	Adult	Overall	200
Gurney, 2020	Prospective observational	Single center	US	Jan 2016–Feb 2018	Clinical outcomes	Adult	Delivery type: Cesarean	109
Heller, 2017	Non-randomized intervention	Multicenter (n=2)	UK (Scotland)	Jul 2015–Mar 2016	Promotion	Any age	Overall	877
Hinz, 2019	Prospective observational	Single center	US	Aug 2016–Jan 2018	Clinical outcomes	Any age	IUD type: Hormonal vs copper	114
Jatlaoui, 2014	Prospective observational	Single center	US	Mar 2009–Mar 2011	Insertion technique/provider	Adult	Overall	99
Levi, 2012	Prospective observational	Multicenter (n=2)	US	Oct 2008–Nov 2009	Clinical outcomes	Any age	Overall	90
Levi, 2015	RCT	Single center	US	Mar 2012–Jun 2014	Utilization	Adult	Overall	112
Moniz, 2019	Retrospective	Claims database	US	Jan 2013–Dec 2016	Utilization	Any age	Overall	396,073

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Ritter, 2021	Retrospective	Multicenter (n=4,200) The Kids' Inpatient Database, HCUP	US	2016	Utilization	Adolescent	Overall	87,193
Sinkey, 2021	Retrospective	Single center	US	Mar 2015–Jun 2019	Utilization	Any age	Comorbidity: Heart disease	159
Soon, 2018	RCT	Single center	US	Nov 2013–Jun 2015	Insertion time	Adolescent	Overall	12
Smith, 2021	Cross-sectional	Multicenter (n=NR)	US	Jan 2015–Dec 2017	Utilization	Any age	Overall	700
Stuart, 2015	RCT	Single center	US	Mar 2012–Jun 2013	Clinical outcomes	Any age	Overall	17
Turok, 2017	RCT	Multicenter (n=2)	US	Feb 2014–Mar 2016	Clinical outcomes	Adult	Overall	319
Wallace Huff, 2021	Prospective observational	Single center	US	Oct–Dec 2015	Patient satisfaction	Adult	Overall	199
Whitaker, 2014	RCT	Single center	US	May 2007–Jan 2011	Insertion time	Adult	Overall	42
Whiteman, 2012	Retrospective	Claims database	US	Jan 2001– Dec 2008	Utilization	Any age	Overall	920
Woo, 2015	Prospective observational	Single center	US	Jan 2011–Aug 2012	Patient satisfaction	Any age	Overall	133
Wu, 2020	Retrospective	Single center	US	Jan 2015–Jun 2016	Effectiveness	Any age	Overall	9,561
Higher-income group: Upper middle								
Ariadi, 2017	Prospective observational	Multicenter (n=3)	Indonesia	Apr 2014–Jul 2014	Insertion technique/provider	Any age	Insertion technique: Sutured vs non-sutured CS	88
Çelen, 2011	Non-randomized intervention	Single center	Turkey	Sep 2006–Dec 2008	Effectiveness	Any age	Overall	245
da Silva, 2020	Cross-sectional	Single center	Brazil	Jan 2018–Jun 2018	Utilization	Any age	Vulnerable women	184
da Silva Nobrega, 2021	Non-randomized intervention	Single center	Brazil	Feb 2017–Dec 2018	Clinical outcomes	Any age	Overall	997
Eser, 2018	Non-randomized intervention	Single center	Turkey	NR	Insertion technique/provider	Any age	Overall	100
Gunardi, 2021	Prospective observational	Single center	Indonesia	Apr 2018–Mar 2019	Clinical outcomes	Any age	Overall	94
Hochmuller, 2020	Prospective observational	Multicenter (n=NR)	Brazil	Jun 2018–Sep 2019	Clinical outcomes	Adult	Overall	124
Kestler, 2011	Prospective observational	Multicenter (n=34)	Guatemala	Mar 2006–Dec 2008	Utilization	Any age	Delivery type: VD vs CS	218,656
Laporte, 2020	RCT	Single center	Brazil	May 2018–May 2019	Clinical outcomes	Adult	IUD type: Hormonal vs copper	140
Marangoni, 2021	RCT	Single center	Brazil	May 2018–May 2020	Clinical outcomes	Adult	Overall	140

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Singata-Madliki	RCT	Multicenter (n=2)	South Africa	Dec 2012–Mar 2013	Clinical outcomes	Adult	Overall	123
Sucak, 2015	Non-randomized intervention	Single center	Turkey	Jan 2009–Jun 2012	Clinical outcomes	Any age	Delivery type: VD vs CS (planned vs emergency)	160
Trigueiro, 2021	Retrospective	Single center	Brazil	Aug 2016–Aug 2017	Insertion training/technique/ provider	Any age	Overall	828
Unal 2018	RCT	Single center	Turkey	Jun 2016–Jun 2017	Insertion technique/provider	Any age	Insertion technique: IUD inserter vs sponge-holding forceps	140
Zaconeta, 2019	Prospective observational	Single center	Brazil	Feb 2012–Jun 2013	Clinical outcomes	Adult	Overall	100
Lower-income group: Lower-middle								
Abro 2018	Non-randomized intervention	Single center	Pakistan	Jan 2016–Jan 2017	Effectiveness	20–45	Overall	220
Agarwal, 2017	RCT	Single center	India	Jun 2015–Nov 2015	Effectiveness	Adult	IUD type: Copper vs CuT380A	100
Agrawal, 2021	Non-randomized intervention	Single center	India	Mar 2019–Nov 2020	Promotion	Any age	Overall	NR
Akram, 2018	Non-randomized intervention	Single center	Pakistan	Jan 2017–Jun 2018	Clinical outcomes	Any age	Overall	100
Alam, 2014	Prospective observational	Single center	Pakistan	Nov 2011–Nov 2012	Clinical outcomes	Adult	Overall	100
Bayoumi, 2020	RCT	Single center	Egypt	Feb 2016–Dec 2018	Clinical outcomes	Adult	Overall	500
Bhadra 2018	Prospective observational	Single center	India	May 2015–Oct 2017	Insertion technique/provider	Any age	Overall	19,170
Bhat 2016	Non-randomized intervention	Single center	India	Jun 2011–May 2014	Utilization	Any age	Insertion time: 10 min vs 10 min–48 h Delivery type: VD vs CS	680
Bhutta, 2011	Cross-sectional	Single center	Pakistan	Nov 2006–Oct 2007	Clinical outcomes	Any age	Delivery type: CS	50
Blumenthal 2018	RCT	Multicenter (n=5)	India	Sep 2015–Jul 2016	Insertion technique/provider	Any age	Insertion technique: PPIUD inserter vs Kelly's forceps	480
Blumenthal, 2016	Prospective observational	Single center	Zambia	Jul 2010–Nov 2010	Patient satisfaction	Any age	Insertion time: 15 min vs 15 min–48 h	305
Butt, 2020	Prospective observational	Single center	Pakistan	Sep 2016–Sep 2018	Clinical outcomes	Any age	Overall	324
Chakheni, 2017	Non-randomized intervention	Single center	India	Jan 2013–Dec 2014	Insertion technique/provider	Any age	Insertion technique: Kelly's forceps vs manually	100

Dasanayake, 2020	Retrospective	Single center	Sri Lanka	Jan 2014–Dec 2019	Promotion	Any age	Overall	14,051
Dewan, 2019	Retrospective	Single center	India	Jan 2010–Dec 2017	Utilization	Any age	Insertion time: 10 min–48 h vs 6 wks	208,210
Dewan, 2017	Non-randomized intervention	Single center	India	Jan 2013–Feb 2013	Clinical outcomes	Adult	Delivery type: VD vs CS	348
Dias, 2016	Prospective observational	Single center	Sri Lanka	Dec 2012–Apr 2013	Insertion technique/provider	Any age	Delivery type: VD vs CS	91
Divakar, 2019	Non-randomized intervention	Multicenter (n=6)	India	Mar 2015–Mar 2017	Promotion	Any age	Overall	66,508
El Beltagy, 2011	RCT	Single center	Egypt	NR	Clinical outcomes	Any age	IUD type: Hormonal vs copper	300
Elsedeek, 2012	Non-randomized intervention	Multicenter (n=3)	Egypt	Jan 2007–Jan 2009	Clinical outcomes	30–40	IUD type: Hormonal vs copper	140
Elsedeek, 2015	Non-randomized intervention	Single center	Egypt	Mar 2006–Dec 2011	Promotion	Any age	IUD type: Hormonal vs copper	143
Elshamy, 2021	Non-randomized intervention	Single center	Egypt	Jan 2018–Dec 2019	Clinical outcomes	Any age	IUD type: Hormonal vs copper	1,100
Eluwa 2016	Cross-sectional	Multicenter (n=11)	Nigeria	May 2014–Feb 2015	Utilization	Any age	Insertion technique: Kelly's forceps vs manually	728
Fatema, 2018	Non-randomized intervention	Single center	Bangladesh	Jan 2013–Jun 2013	Utilization	Any age	Overall	370
Fatima 2018	Non-randomized intervention	Multicenter (n=6)	Bangladesh	Feb 2017–Dec 2017	Insertion technique/provider	Any age	Insertion technique: Pre vs post-insertion training	16,359
Ghafoor, 2020	Cross-sectional	Single center	Pakistan	Jan 2019–Dec 2019	Overall	Adult	Overall	108
Gueye, 2013	Non-randomized intervention	Single center	Senegal	Feb 15–Nov 15, 2012	Insertion technique/provider	Any age	Overall	59
Gupta, 2014	Prospective observational	Single center	India	Sep 2011–Feb 2013	Insertion technique/provider	Any age	Overall	100
Gupta, 2015	Non-randomized intervention	Single center	India	May 2013–Apr 2014	Clinical outcomes	Any age	Overall	150
Gupta, 2018	Retrospective	Single center	India	Jul 2013–Jul 2014	Clinical outcomes	Any age	Insertion time: 10 min vs 10 min–48 h Delivery type: VD vs CS	1,416
Habib, 2020	Retrospective	Single center	Pakistan	Sep 2019–Jul 2020	Clinical outcomes	Adult	VD vs CS	120
Halder 2016	Non-randomized intervention	Single center	India	Apr 2012–Mar 2013	Utilization	Any age	Insertion time: 10 min vs 10 min–48 h	200

							Delivery type: VD vs CS	
Harani, 2019	Prospective observational	Single center	India	Sep 2017–Dec 2017	Clinical outcomes	Any age	Delivery type: VD vs CS	254
Hooda, 2016	Non-randomized intervention	Single center	India	NR	Clinical outcomes	Any age	Overall	593
Huber-Krum, 2020	RCT Note: Hospitals were randomized to initiate PPIUD counseling intervention after 3 months of baseline data collection or after 9 months of baseline data collection	Multicenter (n=6)	Nepal	May 2016–Apr 2018 and Mar 2017–Dec 2018	Promotion	Any age	Overall	69,210
Ifitikhar, 2019	Prospective observational	Single center	Pakistan	Mar 2016–Feb 2019	Patient satisfaction	Any age	Overall	372
Jairaj, 2016	Non-randomized intervention	Single center	India	Jan 2015–Mar 2015	Utilization	Any age	Overall	370
Jakhar, 2019	Prospective observational	Single center	India	Jan 2013–May 2014	Effectiveness	Adult	Overall	200
Kant, 2016	Retrospective	Multicenter (n=2)	India	May 2014–Dec 2014	Utilization	Any age	Overall	611
Karra, 2017	Cross-sectional	Multicenter (n=NR)	Sri Lanka	Jan 2015–May 2015	Promotion	Any age	Overall	13,731
Khan, 2018	Non-randomized intervention	Single center	Pakistan	Apr 2017–Jun 2018	Clinical outcomes	Any age	Delivery type: VD vs CS	500
Khan, 2020	RCT	Single center	Pakistan	Jun 2019–Feb 2020	Clinical outcomes	Adult	Delivery type: VD vs CS	152
Khurshid, 2020	Prospective observational	Single center	India	Mar 2015–Nov 2016	Clinical outcomes	Any age	Insertion time: 10 min–48 h vs 6 wks	511
Kumar, 2014	Prospective observational	Multicenter (n=16)	India	Jan 2011–Dec 2012	Patient satisfaction	Any age	Overall	2,733
Kumar, 2019	Retrospective	Multicenter (n=12)	India	Nov 2015–Dec 2015	Promotion	Any age	Insertion time: 10 min vs 10 min–48 h Delivery type: VD vs CS	844
Lerma, 2020	Cross-sectional	Multicenter (n=5)	India	May 2015–Jul 2016	Insertion time	Any age	Insertion time: 10 min vs 10 min–48 h	560
Makins 2018	Non-randomized intervention	Multicenter (n=48)	Sri Lanka, India, Nepal, Bangladesh, Tanzania, Kenya	May 2014–Sep 2017	Clinical outcomes	Any age	Overall	725,647
Mani, 2018	Prospective observational	Single center	India	NR	Utilization	Any age	Insertion time: 10 min vs 10 min–48 h	200

Mishra, 2014	Non-randomized intervention	Single center	India	Jan 2012–Jun 2013	Utilization	Adult	Overall	564
Mishra, 2017	Retrospective	Single center	India	Jan 2010–Dec 2012	Clinical outcomes	Any age	Delivery type: VD vs CS	736
Muganyizi, 2018	Prospective observational	Multicenter (n=6)	Tanzania	Dec 2016–Oct 2017	Insertion technique/provider	Any age	Overall	40,470
Ndegwa, 2014	RCT	Single center	Kenya	NR	Promotion	Any age	Overall	127
N'Guessan, 2020	Retrospective	Single center	Ivory Coast	Jan 2016–Mar 2017	Clinical outcomes	Any age	Overall	128
Nigam 2018	Non-randomized intervention	Single center	India	Jan 2013–Dec 2013	Promotion	Any age	Overall	550
Nisar, 2020	Retrospective	Single center	Pakistan	Aug 2014–Jul 2016	Clinical outcomes	Any age	Overall	8,003
Pradhan, 2019	RCT	Multicenter (n=6)	Nepal	Sep 2015–Mar 2017	Promotion	Any age	Overall	15,607
Prager, 2012	Non-randomized intervention	Single center	Zambia	Feb 2009–Feb 2009	Insertion technique/provider	Any age	Overall	38
Puri, 2020	RCT	Multicenter (n=6)	Nepal	Sep 2015–Mar 2017	Clinical outcomes	Any age	Overall	75,571
Qazi, 2020	Prospective observational	Single center	Pakistan	Oct 2018–Sep 2019	Clinical outcomes	Adult	Overall	6,283
Rani, 2015	Non-randomized intervention	Single center	India	NR	Clinical outcomes	Any age	Overall	99
Rwegoshora, 2020	Non-randomized intervention	Multicenter (n=6)	Tanzania	Dec 2017–Apr 2018	Clinical outcomes	Any age	Overall	20,276
Shukla, 2012	Prospective observational	Single center	India	Jan 1995–Dec 2000	Effectiveness	Any age	Overall	1,317
Singal, 2014	Prospective observational	Single center	India	Jul 2012–Dec 2012	Clinical outcomes	Any age	Overall	300
Singal, 2021	Cross-sectional	Multicenter (n=20)	India	Feb–Mar and Nov–Dec 2019	Utilization	Any age	Overall	4,012
Singh 2016	Non-randomized intervention	Multicenter (n=2)	India	Mar 2015–Jul 2015	Insertion technique/provider	Any age	Overall	80
Singh, 2021	Prospective observational	Single center	India	Oct 2018–Mar 2019	Insertion training/technique/ provider	Any age	Overall	593
Sodje, 2016	Prospective observational	Multicenter (n=8)	Nigeria	Jun 2014–May 2015	Utilization	Any age	Overall	374
Thapa, 2020	Cross-sectional	Multicenter (n=7)	Nepal	Oct 2018–Mar 2019	Utilization	Any age	Overall	29,072
Vishwakarma, 2020	Non-randomized intervention	Single center	India	Nov 2016–Oct 2019	Clinical outcomes	Adults	Overall	1,029
Wasim, 2018	Non-randomized intervention	Single center	Pakistan	Aug 2015–Jan 2017	Effectiveness	Any age	Delivery type: VD vs CS	3,012
Weerasekera 2018	Non-randomized intervention	Multicenter (n=NR)	Sri Lanka	May 2014–Sep 2017	Promotion	Any age	Overall	184,433
Yadav, 2016	Cross-sectional	Multicenter (n=137)	India	Jan 2013–Dec 2013	Clinical outcomes	Any age	Overall	28,688
Yadav, 2020	Retrospective	Single center	India	Jan 2013–Oct 2019	Promotion	Any age	Overall	20,418

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Zaman, 2020	Non-randomized intervention	Single center	Pakistan	Jan 2015–Dec 2015	Clinical outcomes	Any age	Overall	140
Lower-income group: Lower-middle and high								
Ragab, 2015	RCT	Multicenter (n=3)	Egypt and Saudi Arabia	Jan 2013–Jun 2014	Clinical outcomes	Any age	Overall	120
Lower-income group: Lower-middle and low								
Pfitzer, 2015	Cross-sectional	Multicenter (n=NR)	India, Pakistan, Philippines, Rwanda, Guinea, Ethiopia	Feb 2010–Jul 2013	Promotion	Any age	Overall	1,873,370
Pleah 2016	Cross-sectional	Multicenter (n=5)	Benin, Ivory Coast, Niger, Senegal, Togo (West and Central Africa)	Jan 2014–Dec 2015	Promotion	Any age	Overall	15,394
Lower-income group: Low								
Bryant, 2013	RCT	Single center	Malawi	Oct 2010–Feb 2011	Utilization	Adult	Insertion time: 10 min–48 h vs 6 wks	49
Espey, 2021	Non-randomized intervention	Multicenter (n=6)	Rwanda	Aug 2017–Oct 2018	Promotion	Any age	Overall	12,068
Geda, 2021	Cross-sectional	Multicenter (n=13)	Ethiopia	Aug–Sep 2019	Utilization	Any age	Overall	286
Ingabire, 2018	Non-randomized intervention	Multicenter (n=2)	Rwanda	Aug 2017–Jul 2018	Promotion	Any age	Overall	9,020
Kanakuze, 2020	Cross-sectional	Single center	Rwanda	Jan 2019–Feb 2019	Utilization	Any age	Overall	383
Lester, 2015	RCT	Single center	Uganda	Feb 2011–Dec 2011	Insertion time	Adult	Insertion time: 10 min vs 6 wks	68
Melkie, 2021	Cross-sectional	Multicenter (n=4)	Ethiopia	Jan–Mar 2019	Utilization	Any age	Overall	423
Ngonzi, 2021	Prospective observational	Single center	Uganda	Sep 2014–Jan 2015	Clinical outcomes	Any age	Overall	167
Omona, 2020	Retrospective	Single center	Uganda	Jul 2018–Aug 2018	Utilization	Any age	Overall	202
Wayessa, 2020	Non-randomized intervention	Multicenter (n=NR)	Ethiopia	Apr 2017–May 2017	Promotion	Any age	Overall	471 (intervention) 237 (nonintervention)

Key: CS – Cesarean section; HCUP – Healthcare Cost and Utilization Project; NR – not reported; PPIUD – postpartum intrauterine device; RCT – randomized controlled trial; UK – United Kingdom; US – United States; VD – vaginal delivery; wks – weeks.

Supplement Table 3a. Newcastle-Otawa Scale (NOS) for quality of prospective observational studies

Wells GA, Shea B, O'Connell D, et al. The Newcastle-Ottawa (NOS) for assessing the quality of nonrandomized studies in meta-analyses. http://www.ohri.ca/promas/clinical_epidemiology/oxford.asp

Cell legend: G = green, Y = yellow, R = red

First Author, year	Selection				Comparability	Outcome			Overall quality	
	Representativeness of the exposed cohort	Selection of the non-exposed cohort	Ascertainment of exposure	Demonstration that outcome of interest was not present at start of study	Comparability of cohorts on the basis of the design or analysis	Assessment of outcome	Was follow-up long enough for outcomes to occur?	Adequacy of follow up of cohorts	Score: number of * or NA of 8 (%)	Good: 70%-100% Fair: 50%-69% Low: <50%
Alam, 2014	G	Y	G	G	Y	G	G	R	88%	Good
Ariadi, 2017	G	G	G	G	Y	G	G	G	100%	Good
Bhadra, 2018	G	Y	G	G	G	G	R	R	75%	Good
Blumenthal, 2016	R	G	G	G	G	G	G	R	75%	Good
Butt, 2020	R	Y	G	G	Y	R	G	R	63%	Fair
Cohen, 2016	G	G	G	G	G	G	G	G	100%	Good
Dias, 2015	G	G	G	G	G	G	G	G	100%	Good
Eggebroten, 2017	G	G	G	G	G	R	G	G	88%	Good
Goldthwaite, 2017	G	G	G	G	G	G	G	R	88%	Good
Gonzalez, 2020	G	Y	R	G	Y	G	G	G	75%	Fair
Gunardi, 2021	R	Y	G	G	Y	R	G	G	75%	Good
Gupta, 2014	G	G	G	G	Y	G	G	G	100%	Good
Gurney, 2018	G	G	G	G	Y	G	G	G	100%	Good
Gurney, 2020	R	G	G	G	Y	R	G	G	75%	Good
Harani 2019	G	G	G	G	Y	G	G	G	100%	Good
Hinz, 2019	G	G	G	G	G	R	G	G	88%	Good
Hochmuller, 2020	G	Y	G	G	Y	R	G	G	88%	Good
Iftikhar, 2019	G	Y	G	G	G	G	G	R	88%	Good
Jakhar 2019	R	Y	G	G	Y	R	G	G	75%	Good
Jatlaoui, 2014	G	Y	G	G	Y	R	G	G	88%	Good
Kestler, 2011	G	G	G	G	Y	G	R	R	75%	Good
Khurshid 2020	R	G	G	G	Y	G	G	G	75%	Good
Kumar, 2014	G	Y	G	G	Y	G	G	G	75%	Good
Levi, 2012	G	G	G	G	Y	R	G	G	75%	Good
Mani, 2018	G	G	G	G	Y	G	G	G	88%	Good
Muganyizi, 2018	G	G	G	G	Y	G	G	G	88%	Good
Ngonzi, 2021	G	G	G	G	Y	R	G	G	75%	Good
Qazi, 2020	G	G	G	G	G	R	G	G	88%	Good
Shukla, 2012	G	G	G	G	G	G	G	R	88%	Good
Singal, 2014	R	Y	G	G	G	G	G	G	88%	Good
Singh, 2021	R	G	G	G	Y	R	G	G	75%	Good
Sodje, 2016	G	Y	G	G	Y	G	G	G	100%	Good
Wallace Huff, 2021	R	G	G	G	Y	R	G	G	75%	Good
Woo, 2015	G	G	R	G	Y	R	G	G	75%	Good
Zaconeta 2019	G	Y	G	G	Y	G	G	G	100%	Good

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Key: NOS QA criteria table

	Meets good quality criteria
	Criteria not applicable (NA)
	Does not meet good quality criteria

Supplement Table 3b. Motheral (ISPOR) tool for Retrospective studies

Motheral B, Brooks J, Clark MA, et al. A checklist for retrospective database studies--report of the ISPOR Task Force on Retrospective Databases. Value Health. 2003;6(2):90-97.

Color key: G = Meets good quality criteria (green); Y = Criteria not applicable (yellow); R = Does not meet good quality criteria (red).

First Author, year	Data Sources				Methods: Research Design				Methods: Study Population and Variable Definitions								
	Relevance	Reliability and Validity	Linkages	Eligibility	Data analysis plan	Design selection	Research design limitations	Treatment effect	Sample selection	Eligibility	Censoring	Operational definitions	Definition validity	Timing of outcome	Event capture	Disease history	Resource valuation
Allison 2021	G	R	Y	G	G	R	G	Y	G	G	R	G	G	G	G	Y	Y
Cole, 2019	R	R	Y	G	G	R	R	G	G	G	Y	R	R	G	G	G	Y
Cowill, 2018	R	R	G	G	G	R	R	G	G	G	R	G	G	G	G	G	Y
Dasanayake 2020	G	G	Y	G	G	R	G	Y	R	G	R	R	G	R	G	Y	Y
Dewan 2019	G	G	Y	G	G	G	R	G	R	G	R	G	G	G	G	Y	Y
Gupta 2018	G	G	Y	G	G	R	G	G	G	G	R	G	G	G	G	G	Y
Habib, 2020	R	R	Y	G	G	R	G	Y	G	G	R	G	G	G	G	Y	Y
Kant 2016	G	G	Y	G	G	G	G	Y	G	G	R	G	G	G	G	G	Y
Kumar 2019	G	G	G	G	G	G	G	G	R	G	G	G	G	G	G	G	Y
Mishra 2017	R	R	Y	G	G	R	R	G	G	G	R	G	R	G	G	Y	Y
Moniz, 2019	G	R	G	G	G	R	G	G	G	G	G	G	G	G	G	G	Y
N'Guessan 2020	R	G	Y	G	G	R	G	G	G	G	R	G	G	G	G	Y	Y
Nisar, 2020	G	R	Y	G	G	G	G	G	G	G	R	G	G	G	G	G	Y
Omona, 2020	G	R	Y	G	G	R	G	G	G	G	G	G	G	G	G	G	Y
Sinkey, 2021	G	R	Y	G	G	R	G	R	G	G	G	G	G	G	G	G	Y
Trigueiro, 2021	G	R	Y	G	G	G	G	G	G	G	R	G	G	G	G	G	Y
Whiteman, 2012	G	R	G	G	G	R	G	G	G	G	R	G	G	G	G	G	Y
Wu, 2020	G	R	Y	G	G	R	G	G	G	G	R	G	G	G	G	Y	Y
Yadav, 2020	G	G	G	G	G	R	R	R	G	G	R	G	G	G	G	Y	Y

Key
- Green: Meets good quality criteria
- Yellow: Criteria not applicable
- Red: Does not meet good quality criteria

Table 3b. Motheral (ISPOR) tool for Retrospective studies, continued

First Author, year	Statistics							Discussion/Conclusions			Overal Quality	
	Control variables	Statistical model	Influential cases	Relevant variables	Testing statistical assumptions	Multiple tests	Model prediction	Theoretical Basis	Practical versus Statistical Significance	Generalizability	Score: Yes + Not applicable (%)	Good: 70%-100% Fair: 50%-69% Low: <50%
Allison 2021	yellow	red	yellow	yellow	yellow	yellow	yellow	green	green	green	85%	Good
Cole, 2019	red	red	red	red	red	yellow	red	green	green	green	48%	Low
Cowill, 2018	green	red	red	red	red	yellow	red	green	green	green	59%	Fair
Dasanayake 2020	yellow	red	yellow	yellow	yellow	red	yellow	green	green	green	74%	Good
Dewan 2019	yellow	red	yellow	yellow	yellow	red	yellow	green	green	green	74%	Good
Gupta 2018	yellow	red	yellow	yellow	yellow	red	yellow	green	green	red	81%	Good
Habib, 2020	yellow	red	yellow	yellow	yellow	yellow	yellow	green	green	green	67%	Fair
Kant 2016	yellow	red	yellow	green	red	red	green	green	green	green	70%	Good
Kumar 2019	yellow	red	yellow	yellow	yellow	red	yellow	green	green	red	78%	Good
Mishra 2017	yellow	red	yellow	yellow	yellow	red	yellow	green	green	green	67%	Fair
Moniz, 2019	green	green	green	green	green	yellow	green	green	green	green	93%	Good
N'Guessan 2020	yellow	red	yellow	yellow	yellow	red	yellow	green	green	green	74%	Good
Nisar, 2020	yellow	red	yellow	yellow	yellow	yellow	yellow	green	green	red	74%	Good
Omona, 2020	yellow	red	yellow	yellow	yellow	yellow	yellow	green	green	green	78%	Good
Sinkey, 2021	yellow	red	yellow	yellow	yellow	yellow	yellow	green	green	green	85%	Good
Trigueiro, 2021	yellow	red	yellow	yellow	yellow	yellow	yellow	green	green	green	81%	Good
Whiteman, 2012	green	green	red	green	red	yellow	red	green	green	green	78%	Good
Wu, 2020	green	green	red	green	red	green	yellow	green	green	green	81%	Good
Yadav, 2020	yellow	red	yellow	yellow	yellow	yellow	yellow	green	green	red	78%	Good

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Table 3c. JBI Critical appraisal tool for Cross-sectional studies

Moola S, Munn Z, Tufanaru C, Aromataris E, Sears K, Sfetcu R, Currie M, Qureshi R, Mattis P, Lisy K, Mu P-F. Chapter 7: Systematic reviews of etiology and risk . In: Aromataris E, Munn Z (Editors). JBI Manual for Evidence Synthesis. JBI, 2020. Available from https://synthesismanual.jbi.global

First Author, year	Checklist								Overall Quality	
	1. Inclusion criteria	2. Subjects' description	3. Exposure measurement	4. Criteria used for measurement	5. Confounding factors identification	6. Strategies for confounding factors	7. Outcomes' measurement	8. Statistical analysis	Score: Yes + Not applicable (%)	Good: 70%-100% Fair: 50%-69% Low: <50%
Bhutta 2011	green	green	green	green	green	green	green	green	100%	Good
Boydell, 2020	green	green	yellow	green	red	red	green	green	63%	Fair
da Silva, 2020	green	green	yellow	green	red	red	green	green	63%	Fair
Eluwa 2016	green	green	green	green	green	green	green	green	100%	Good
Gallagher 2019	red	red	green	green	red	red	green	yellow	50%	Fair
Geda, 2021	green	green	yellow	green	red	red	green	green	63%	Fair
Ghafoor, 2020	green	green	yellow	green	red	red	green	green	63%	Fair
Kanakuze, 2020	green	green	yellow	green	red	red	green	green	63%	Fair
Karra 2017	red	green	green	green	green	green	green	green	88%	Good
Lerma 2020	green	green	green	green	green	green	green	green	100%	Good
Melkie, 2021	green	red	yellow	green	red	red	green	green	50%	Fair
Pfitzer 2015	red	red	yellow	yellow	red	red	yellow	yellow	13%	Low
Pleah 2016	red	red	red	yellow	red	red	yellow	yellow	13%	Low
Singal, 2021	green	green	yellow	green	red	red	green	green	63%	Fair
Smith, 2021	green	green	yellow	green	red	red	green	green	63%	Fair
Thapa, 2020	green	green	yellow	green	red	red	green	green	63%	Fair
Yadav 2016	green	green	green	green	green	green	green	green	100%	Good

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Table 3d. JBI Critical appraisal tool - Non-randomized interventional
Tufanaru C, Munn Z, Aromataris E, Campbell J, Hopp L. Chapter 3: Systematic reviews of effectiveness. In: Aromataris E, Munn Z (Editors). JBI Manual for Evidence Synthesis. JBI, 2020. Available from https://synthesismanual.jbi.global

First Author, year	Checklist									Overall Quality	
	1. Cause and effect definition	2. Participants matched	3. Similar intervention	4. Control group	5. Measurements pre and post intervention	6. Study follow-up	7. Outcomes' report	8. Outcomes' measurement	9. Statistical analysis	Score: Yes + Not applicable (%)	Good: 70%-100% Fair: 50%-69% Low: <50%
Abro, 2018	green	green	green	red	yellow	green	green	green	green	89%	Good
Agrawal, 2021	green	red	yellow	red	yellow	green	green	green	green	78%	Good
Akram, 2018	green	yellow	yellow	red	yellow	red	yellow	green	green	78%	Good
Bhat, 2016	green	green	green	red	yellow	red	green	green	green	78%	Good
Çelen, 2011	green	yellow	yellow	red	yellow	green	green	green	green	89%	Good
Chakheni, 2017	green	green	green	red	yellow	green	green	green	green	89%	Good
Cooper, 2020	green	green	green	green	yellow	red	green	green	green	78%	Good
da Silva Nobrega, 2021	green	green	green	green	green	green	green	green	green	100%	Good
Dewan, 2017	green	green	green	green	green	green	green	green	green	100%	Good
Divakar, 2019	green	yellow	yellow	red	yellow	red	yellow	green	green	78%	Good
Elsedeek, 2012	green	green	green	green	green	green	green	green	green	100%	Good
Elsedeek, 2015	green	green	green	red	yellow	green	green	green	green	89%	Good
Elshamy, 2021	green	green	green	green	green	green	green	green	green	100%	Good
Eser, 2018	green	yellow	yellow	red	yellow	green	yellow	green	green	89%	Good
Espey, 2021	green	red	green	green	yellow	green	red	green	green	56%	Fair
Fatema, 2018	green	green	yellow	green	yellow	red	yellow	green	yellow	78%	Good
Fatima, 2018	green	green	green	green	yellow	green	green	green	green	89%	Good
Glasier, 2020	green	green	green	green	green	green	green	green	green	100%	Good
Gueye, 2013	green	yellow	yellow	red	yellow	red	yellow	green	green	78%	Good
Gupta, 2015	green	red	yellow	red	yellow	green	green	green	green	78%	Good
Halder, 2016	green	green	green	green	yellow	yellow	green	green	green	89%	Good
Heller, 2017	green	yellow	yellow	green	yellow	red	yellow	green	green	78%	Good
Hooda, 2016	green	green	green	red	yellow	yellow	yellow	green	green	78%	Good
Ingabire, 2018	green	yellow	yellow	red	yellow	red	yellow	green	green	67%	Fair
Jairaj, 2016	green	yellow	yellow	red	yellow	green	yellow	green	yellow	78%	Good
Khan, 2018	green	green	green	red	yellow	green	green	green	green	89%	Good
Makins, 2018	green	yellow	yellow	red	yellow	red	green	green	green	67%	Fair
Mishra, 2014	green	green	green	red	yellow	green	yellow	green	green	78%	Good
Nigam, 2018	green	yellow	yellow	red	yellow	green	green	green	green	89%	Good
Prager, 2012	green	yellow	yellow	red	yellow	green	yellow	yellow	yellow	89%	Good

Study										%	Rating
Rani, 2015										100%	Good
Rwegoshora, 2020										78%	Good
Singh, 2016										89%	Good
Sucak, 2015										78%	Good
Vishwakarma, 2020										89%	Good
Wasim, 2018										89%	Good
Wayessa, 2020										100%	Good
Weerasekera, 2018										78%	Good
Zaman, 2020										100%	Good

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Table 3e. Cochrane's tool for Randomized controlled trials

Higgins, J.P.T., et al., The Cochrane Collaboration's tool for assessing risk of bias in randomised trials. BMJ, 2011. 343: p. d5928.

Key for cell colours: Green = Low risk of bias; Yellow = Unclear risk of bias; Red = High risk of bias.

First Author, year	Selection bias — Random sequence generation	Selection bias — Allocation concealment	Reporting bias — Selective reporting	Other bias — Other sources of bias	Performance bias — Blinding (participants and personnel)	Detection bias — Blinding (outcome assessment)	Attrition bias — Incomplete outcome data	Overall Risk of bias — Low risk of bias (%)	Overall Risk of bias — Low: 70%-100% Medium: 50-69% High: <50%
Agarwal 2017	Green	Green	Green	Yellow	Red	Red	Green	57%	Medium
Bayoumi, 2020	Green	Green	Green	Yellow	Red	Red	Green	57%	Medium
Blumenthal 2018	Green	Green	Green	Yellow	Red	Red	Green	57%	Medium
Braniff 2015	Green	Green	Green	Yellow	Red	Red	Green	57%	Medium
Bryant 2013	Green	Green	Green	Yellow	Red	Red	Green	57%	Medium
Chen, 2010	Green	Green	Yellow	Green	Red	Green	Green	71%	Low
Dahlke,2011	Green	Green	Yellow	Yellow	Red	Red	Green	43%	High
El Beltagy 2011	Green	Yellow	Green	Yellow	Red	Red	Yellow	29%	High
Huber-Krum, 2020	Green	Green	Green	Yellow	Red	Red	Green	57%	Medium
Khan, 2020	Green	Green	Yellow	Yellow	Red	Red	Green	43%	High
Laporte 2020	Green	Green	Green	Yellow	Red	Red	Green	57%	Medium
Lester 2015	Green	Green	Yellow	Yellow	Red	Red	Red	43%	High
Levi, 2015	Green	Green	Yellow	Yellow	Red	Red	Green	43%	High
Ndegwa 2014	Yellow	Yellow	Green	Yellow	Red	Red	Green	29%	High
Pradhan 2019	Red	Red	Green	Red	Red	Red	Yellow	14%	High
Puri, 2020	Green	Green	Green	Yellow	Red	Red	Green	57%	Medium
Ragab 2015	Green	Yellow	Green	Yellow	Red	Red	Yellow	29%	High
Singata-Madliki 2016	Green	Green	Green	Yellow	Red	Red	Green	57%	Medium
Soon, 2018	Green	Green	Yellow	Red	Red	Yellow	Red	29%	High
Stuart, 2015	Green	Green	Yellow	Yellow	Red	Red	Green	43%	High
Turok, 2017	Green	Green	Yellow	Yellow	Red	Red	Green	43%	High
Unal 2018	Green	Green	Green	Yellow	Red	Red	Green	57%	Medium
Whitaker, 2014	Green	Green	Yellow	Yellow	Green	Green	Green	71%	Low

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Supplemental Table 4. Pregnancies

First author, publication year	Study design	Data source standard	Country	Years of data collection	Sample size	IUD type	Delivery type	Pregnancies
Gurney, 2020	Prospective observational	Single center	US	2016–2018	109	Copper	Cesarean	6 months: 0
Wu, 2020	Retrospective	Single center	US	2015–2016	595	Both	Both	18 months: 7.4% (44/595)
Gunardi, 2021	Prospective observational	Single center	Indonesia	2018–2019	94	Copper	Both	6 months: 0%
Cooper, 2020	Non-randomized intervention	Multicenter (n=2)	UK (Scotland)	2017–2019	379	Both	Vaginal	12 months: 8 (2.1%) 6 occurred in women who either did not attend initial follow-up (n=2) or declined re-insertion (or alternative method) following confirmed expulsion (n=4) One was a planned pregnancy after device removal at 10 months postpartum Another pregnancy followed device removal for colposcopy at 8 months postpartum
Cohen, 2016	Prospective observational	Single center	US	2010–2011	82	Both	Both	12 months: 5/67 patients (7.6%) 0/5 due to IUD failure (all were after discontinuation)
Çelen, 2011	Non-randomized intervention	Single center	Turkey	2006–2008	245	Copper	Cesarean	12 months: 1 (0.4%)
Sucak, 2015	Non-randomized intervention	Single center	Turkey	2009–2012	160	Copper	Both	12 months: 0%
Gurney, 2018	Prospective observational	Single center	US	2015–2017	200	Copper	Vaginal	6 months: 2/162 patients (1.2%; 95% CI: 0%–4.4%)
Woo, 2015	Prospective observational	Single center	US	2011–2012	133	NR	NR	6 months: 0/43 patients (0.0%)
Jatlaoui, 2014	Prospective observational	Single center	US	2009–2011	99	Both	Vaginal	6 months: 0/99 (0%)
Chen, 2010	RCT	Single center	US	2007–2008	51	Hormonal	Vaginal	6 months: 0 (0%)
Stuart, 2015	RCT	Single center	US	2012–2013	17	Hormonal	Vaginal	6 months: 0 (0%)
Levi, 2015	RCT	Single center	US	2012–2014	112	Both	Cesarean	6 months: 0 (0%)
Eser 2018	Non-randomized intervention	Single center	Turkey	NR	100	Copper	Cesarean	2–3 months: 0% (0%)
Unal	RCT	Single center	Turkey	2016–2017	140	Copper (IUD inserter)	Cesarean	Median 96 days: 0/69 (0%)

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Totals					2,516			60
Bayoumi, 2020	RCT	Single center	Egypt	2016–2018	500	Copper	Cesarean	12 months: 22/500 (4.4%)
Butt, 2020	Prospective observational	Single center	Pakistan	2016–2018	324	Copper	Both	12 months: 0%
Gupta, 2015	Non-randomized intervention	Single center	India	2013–2014	150	Copper	Both	6 months: 0
Habib, 2020	Retrospective	Single center	Pakistan	2019–2020	120	Copper	Vaginal	6 months: 0
Khan, 2020	RCT	Single center	Pakistan	2019–2020	152	Copper	Vaginal	3 months: 3/152 (1.97%)
Qazi, 2020	Prospective observational	Single center	Pakistan	2018–2019	200	Copper	Both	3 months: 0
Rani, 2015	Non-randomized intervention	Single center	India	NR	99	Copper	Vaginal	6 months: 0
Rwegoshora, 2020	Non-randomized intervention	Multicenter (n=6)	Tanzania	2017–2018	511	Copper	Both	12 months: 1/511 (0.2%)
Yadav, 2020	Retrospective	Single center	India	2013–2019	3,753	Copper	Both	3 months: 0
Zaman, 2020	Non-randomized intervention	Single center	Pakistan	2015–2015	122	Copper	NR	6 months: 0
Halder 2016	Non-randomized intervention	Single center	India	2012–2013	190	Copper	Both	18 months: 0
Khurshid, 2020	Prospective observational	Single center	India	2015–2016	238	Copper	Vaginal	12 months: 1/139 (0.7%)
Dasanayake, 2020	Retrospective	Single center	Sri Lanka	2014–2019	119	NR	Both	12 months: 0
Singal, 2014	Prospective observational	Single center	India	2012–2012	300	Copper	Cesarean	12 months: 2/300 (0.6%)
Ragab, 2015	RCT	Multicenter (n=3)	Egypt and Saudi Arabia	2013–2014	120	Copper	Cesarean	12 months: 2/120 (1.7)
Mani, 2018	Prospective observational	Single center	India	NR	200	Copper	Both	6 months: 1 in 10 min group (1%)
Gupta, 2014	Prospective observational	Single center	India	2011–2013	100	Copper	Both	6 months: 0
Mishra, 2014	Non-randomized intervention	Single center	India	2012–2013	564	Copper	Both	6 months: 0
Wasim, 2018	Non-randomized intervention	Single center	Pakistan	2015–2017	1250	Copper	Both	6 months: 0
Jakhar, 2019	Prospective observational	Single center	India	2013–2014	200	Copper	Cesarean	6 months: 0
Harani, 2019	Prospective observational	Single center	India	2017	254	Copper	Both	3 months: 0

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Mishra, 2017	Retrospective	Single center	India	2010–2012	209	Copper	Both	3 months: 4/209 (1.91%)
Totals					9,675			36

Key: CI – confidence interval; IUD – intrauterine device; NR – not reported; RCT – randomized controlled trial; UK – United Kingdom; US – United States.

Supplemental Table 5. PPIUD expulsions reported in studies from higher-income countries

First author, publication year	Study design	Sample size	IUD type	Delivery type (vaginal; cesarean)	Immediate (%)	3 months (%)	6 months (%)	12 months (%)
Ariadi, 2017	Prospective observational	44	NR	Cesarean Insertion technique: Non-sutured CS	NR	At 3 months: 5/44 (11.4%)	NR	NR
Ariadi, 2017	Prospective observational	44	NR	Cesarean Insertion technique: Sutured CS	NR	0	NR	NR
Boydell, 2020	Cross-sectional	35	Both	Both	NR	4-6 weeks Partial/complete expulsion: 4/35 (11.4%)	NR	NR
Braniff, 2015	RCT	25	Hormonal	Cesarean	NR	NR	At 6 months: 0%	NR
Çelen, 2011	Non-randomized intervention	245	Copper	Cesarean	2 days: 1.2%	6 weeks: 5.3%	At 6 months: 10.6%	At 12 months: 17.6%
Chen, 2010	RCT	51	Hormonal	Vaginal	NR	At 6–8 weeks: 9/50 (18%)	Between 6 and 8 weeks and 6 months: 6% Up to 6 months: 12/50 (24%); complete: 9/50 (18%); partial: 3/50 (6%)	NR
Cohen, 2016	Prospective observational	82	Both	Both	NR	16/69 patients with follow-up (23%) All occurred within 12 weeks of placement	0 between 3 mos. and 6 mos.	1/67 between 6 and 12 months; patients with 12-month follow-up (1.5%)
Cole, 2019	Retrospective	116	Hormonal	Both	NR	13/87 (14.9%) (expulsions occurred within the first 30 days)	Between 30 days and 6 months: 3/87=3.4%	NR
Colwill, 2018	Retrospective	210	Copper	Both	Complete expulsion on PPD day 0: 3/169 (1.8%)	Overall: 5.9% Complete expulsion: 8/169 (4.7%); partial expulsion: 2/169 (1.2%) (expulsions	NR	NR

						occurred within the first 6 weeks)	
Cooper, 2020	Non-randomized intervention	379	Both	Vaginal	NR	At 6 weeks Complete device expulsion: 29.8%; partial expulsion; and/or placement concern: 31.1%	NR	NR
Dahlke, 2011	RCT	15	Hormonal	Vaginal	NR	NR	4/15 (27%)	NR
Dahlke, 2011	RCT	15	Hormonal	Vaginal	NR	NR	4/15 (27%)	NR
da Silva Nobrega, 2021	Non-randomized intervention	997	Copper	Both	NR	45–60 days Complete: 6/574 (0.6%) Partial: 20/574 (3.5%) Total: 4.5%	Cumulative up to 9 months: 61/729 (8.9%) 6–9 months Complete: 0/371 (0%) Partial: 1/371 (0.3%)	NR
Eser 2018	Non-randomized intervention	100	Copper	Cesarean	NR	During the first month: 1/100 (1%)	NR	NR
Eggebroten, 2017	Prospective observational	88	Copper	Both	NR	NR	4%	NR
Eggebroten, 2017	Prospective observational	123	Hormonal	Both	NR	NR	LNG IUD: 17% Compared to Copper IUD: Adjusted HR: 5.8; 95% CI: 1.3–26.4	NR
Goldthwaite, 2017	Prospective observational	55	Copper	Vaginal	NR	Total expulsions: 8/41 (19.5%) Complete expulsion: 4/41 (9.8%) Partial expulsion: 4/41 (9.8%)	NR	NR
Goldthwaite, 2017	Prospective observational	68	Hormonal	Vaginal	NR	Total expulsions: 21/55 (38.2%) OR: 2.55; 95% CI: 0.99–6.55; *P*=0.05 (compared to Copper IUD) Complete expulsion: 15/55 (27.3%); OR: 3.47; 95% CI: 1.06–11.40; *P*=0.03 (compared to Copper IUD) Partial expulsion: 6/55 (10.9%); OR: 1.13;	NR	NR

						95% CI: 0.03–4.31; *P*=0.86 (compared to Copper IUD) Of the 29 total expulsions (independent of IUD type), 25 (86%) occurred ≤6 weeks postpartum		
Gonzalez, 2020	Prospective observational	93	Both	Cesarean	NR	Total: 8.7% 6/93 (6.5%) partially expelled by 3 months Complete expulsion by 3 months: 2/93 (2.2%)	Partial/complete expulsion between 3 and 6 months: 0	Partial/complete expulsion between 6 and 12 months: 0
Gunardi, 2021	Prospective observational	94	Copper	Both	NR	At 6 weeks: 2/94 (2.1%) At 3 months: 3/87 (3.5%)	0/70 (0%)	NR
Gurney, 2018	Prospective observational	200	Copper	Vaginal	NR	Total: 16% 9/149 patients who completed 6-week visit (6.0%) including a string check/pelvic exam had complete expulsion 15/149 patients who completed 6-week visit (10.1%) including a string check/pelvic exam had partial expulsion	Between 6 weeks–6 months: 15/162: 9.3% 13/162 patients who completed 6-month visit (8.0%) had complete expulsion 26/162 patients who completed 6-month visit (16.0%) had partial expulsion	NR
Gurney, 2020	Prospective observational	109	Copper	Cesarean	NR	At 6 weeks Partial: 2/88 (2.3%)	Complete: 2/69 (2.9%) Partial: 3/69 (4.4%)	NR
Heller, 2017	Non-randomized intervention	877	Both	Cesarean	NR	At 6 weeks: 7/114 (6.14%)	At 14 weeks: 1/114 (0.88%)	At 28 weeks: 1/114 (0.88%)
Hinz, 2019	Prospective observational	39	Both	Both	NR	NR	8/39 (20.5%) By 6 mos, exact timing NR	NR
Hinz, 2019	Prospective observational	114	Both	Both	NR	NR	28/114 (24.5%) By 6 mos, exact timing NR	NR
Hinz, 2019	Prospective observational	75	Both	Both	NR	NR	20/75 (26.7%) By 6 mos, exact timing NR	NR

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Hochmuller, 2020	Prospective observational	124	Copper	Both	NR	At 4 weeks: 33/124 (26.6%)	NR	NR
Jatlaoui, 2014	Prospective observational	99	Both	Vaginal	NR	NR	17/88 (19.3%) (10 complete, 7 partial) By 6 mos, exact timing NR	NR
Laporte, 2020	RCT	70	IUD type: Copper	Both	NR	Total and partial expulsions **Cumulative by 90 days** Vaginal delivery: 18/39 (46.2%) Cesarean delivery: 4/31 (12.9%) **42 days** Vaginal delivery: 17/39 (43.2%) Cesarean delivery: 4/31 (12.9%) **42–90 days** Vaginal delivery: 1/39 (2.6%) Cesarean delivery: 0/31 (0%)	NR	NR
Laporte, 2020	RCT	70	IUD type: Hormonal	Both	NR	Total and partial expulsions **Cumulative by 90 days** Vaginal delivery: 8/35 (22.6%) Cesarean delivery: 4/35 (11.4%) **42 days** Vaginal delivery: 8/35 (22.6%) Cesarean delivery: 4/35 (11.4%) **42–90 days** Vaginal delivery: 0/35 (0%) Cesarean delivery: 0/35 (0%)	NR	NR
Levi, 2012	Prospective observational	90	Copper	Cesarean	NR	0/43 (0%) at 6 weeks	0/42 (0%)	NR

Levi, 2015	RCT	112	Both	Cesarean	NR	4/53 (8%), all within the first 3 weeks postpartum; excluding loss to follow-up: 4/48 (8%)	NR	NR
Marangoni, 2021	RCT	140	Both	Both	NR	At 6 weeks: 33/140 (23.6%)	NR	Cumulative: 38/140 (27.1%) 3 months–1 year: 4/140 (2.9%)
Sinkey, 2021	Retrospective	159	NR	NR	NR	At 2 months: 1/9 (11%)	NR	NR
Soon, 2018	RCT	6	Hormonal	Vaginal	NR	1/6 (17%)	NR	NR
Stuart, 2015	RCT	17	Hormonal	Vaginal	NR	7/17 (41%) (within 4 weeks)	NR	NR
Sucak, 2015	Non-randomized intervention	47	Copper	Delivery type: Cesarean (emergency)	NR	Cumulative rate of IUD expulsion 2 days: 2.1% 6 weeks: 6.7%	At 6 months Cumulative rate of IUD expulsion: 8.9%	Expulsion rate: 8.9% Complete expulsion: 6.7% Partial expulsion: 2.2%
Sucak, 2015	Non-randomized intervention	62	Copper	Delivery type: vaginal	NR	Cumulative rate of IUD expulsion 2 days: 1.6% 6 weeks: 9.7%	At 6 months Cumulative rate of IUD expulsion: 11.3%	Expulsion rate: 11.3% Complete expulsion: 4.8% Partial expulsion: 6.5%
Sucak, 2015	Non-randomized intervention	51	Copper	Delivery type: Planned cesarean	NR	Cumulative rate of IUD expulsion 2 days: 0% 6 weeks: 4.3%	At 6 months Cumulative rate of IUD expulsion: 6.5%	Cumulative rate of IUD expulsion: Expulsion rate: 8.7% Complete expulsion: 4.3% Partial expulsion: 4.3%
Trigueiro, 2021	Retrospective	828	Copper	NR	NR	NR	NR	Up to 1 year: 26/247 (10.7%)
Turok, 2017	RCT	319	Hormonal	Both	NR	24/125 (19%) (IUD retention was confirmed at 2–4 weeks)	NR	NR
Unal 2018	RCT	70	Copper	Cesarean (insertion technique: GyneFix)	NR	NR	Median 96 days: 1/69 (1.4%)	NR
Unal 2018	RCT	70	Copper	Cesarean (insertion technique: sponge forceps)	NR	NR	Median 96 days: 8/68 (11.4%)	NR

Wallace Huff, 2021	Prospective observational	199	NR	NR	NR	1/24 (4.1%)	NR	NR
Whitaker, 2014	RCT	42	Hormonal	Cesarean	NR	4/20 (20.0%)	NR	NR
Zaconeta, 2019	Prospective observational	100	Copper	Cesarean	NR	**At 6 weeks** Expulsion (total exteriorization of the IUD or when transvaginal sonography showed the device was inside the cervical canal): 5/99 (5.1%)	**At 6 mos** Expulsion (total exteriorization of the IUD or when transvaginal sonography showed the device was inside the cervical canal): 8/97 (8.2%)	
Woo, 2015	Prospective observational	133	NR	NR	NR	NR	9/55 patients who completed 6-month follow-up (16.4%) By 6 mos, exact timing NR	NR

Key: h – hour; min – minute; mos – months; NR – not reported; RCT – randomized controlled trial.

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Supplemental Table 6. PPIUD expulsions reported in studies from lower-income countries

First author, publication year	Study design	Country	Subgroup	Sample size	IUD type	Delivery type (vaginal; cesarean)	Immediate (%)	3 months (%)	6 months (%)	12 months (%)
Abro 2018	Non-randomized intervention	Pakistan	Overall	220	NR	NR	NR	NR	At 6 mos: 21/220 (9.5%)	NR
Agarwal, 2017	RCT	India	IUD type: Cu375	50	Copper	Cesarean	At 1 week: 1/50 (2%)	NR	NR	NR
Agarwal, 2017	RCT	India	IUD type: CuT380A	50	Copper	Cesarean	At 1 week: 2/50 (4%)	NR	NR	NR
Akram, 2018	Non-randomized intervention	Pakistan	Overall	100	NR	Cesarean	NR	NR	At 6 mos: 0/87 (0%)	NR
Alam, 2014	Prospective observational	Pakistan	Overall	100	Copper	NR	NR	Total: 8% **At 1 week** Partial: 4% Complete: 2% **At 10 weeks** Partial: 1% Complete: 1%	NR	NR
Bayoumi, 2020	RCT	Egypt	Overall	500	Copper	Cesarean	NR	**At 6 weeks:** 49/478 (10.3%)	9/416 (2.2%)	0/396 (0%)
Bhadra 2018	Prospective observational	India	Overall	19,170	NR	Both	NR	**At 6 weeks:** 14/4,551 (0.3%)	NR	NR
Bhat 2016	Non-randomized intervention	India	Overall	680	Copper	Both	NR	NR	At 6 mos: 55/644 (8.54%)	NR
Blumenthal 2018	RCT	India	Insertion technique: Kelly forceps	239	Copper	Vaginal	NR	Total: 10.4% **6–8 weeks** Partial: 12/239 (5.0%) Complete: 13/239 (5.4%)	NR	NR
Blumenthal 2018	RCT	India	Insertion technique: PPIUD inserter	241	Copper	Vaginal	NR	Total: 18.7% **6–8 weeks** Partial: 26/241 (10.8%) Complete: 19/241 (7.9%)	NR	NR

Blumenthal, 2016	Prospective observational	Zambia	Overall	305	NR	NR	NR	NR	At 6 mos: 17/305 (5.6%)	NR
Bryant, 2013	RCT	Malawi	Insertion time: Within 48 hours	26	Copper	Vaginal	1 week after insertion: 1/12 (8.3%)	NR	NR	NR
Butt, 2020	Prospective observational	Pakistan	Overall	324	Copper	Both	NR	**At 6 weeks** Spontaneous partial expulsion: 1/50 (2.2%)	NR	NR
Chakheni, 2017	Non-randomized intervention	India	Insertion technique: Manual	50	Copper	Cesarean	NR	**At 12 weeks** Displaced/ partially expelled: 1/47 (2.1%)	NR	NR
Chakheni, 2017	Non-randomized intervention	India	Insertion technique: Kelly forceps	50	Copper	Cesarean	NR	**At 12 weeks** Displaced/ partially expelled: 1/50 (2%)	NR	NR
Dasanayake, 2020	Retrospective	Sri Lanka	Overall	14,051	NR	Both	NR	NR	NR	**At 12 mos** Spontaneous expulsion: 6.7%
Dewan, 2017	Non-randomized intervention	India	Delivery type: VD	63	Copper	Vaginal	1/63 (1.6%)	2/58 (3.4%)	0/54 (0%)	0/52 (0%)
Dewan, 2017	Non-randomized intervention	India	Delivery type: CD	285	Copper	Cesarean	1/285 (0.3%)	0/264 (0%)	0/263 (0%)	0/261 (0%)
Dias, 2016	Prospective observational	Sri Lanka	Delivery type: VD	60	Copper	Vaginal	2/60 (3.3%)	At 6 weeks: 6/91 (6.6)	NR	NR
Dias, 2016	Prospective observational	Sri Lanka	Delivery type: CD	31	Copper	Cesarean	0/31 (0%)	At 6 weeks: 6/91 (6.6)	NR	NR
Divakar, 2019	Non-randomized intervention	India	Overall	66,508	Copper	Both	NR	Postpartum checkup visit (timepoint not defined) Expelled IUD: 1.2%	NR	NR
El Beltagy, 2011	RCT	Egypt	IUD type: Copper	150	Copper	Vaginal	NR	At 6 weeks: 5/148 (3.4%)	After 6 mos: 6.0%	NR
El Beltagy, 2011	RCT	Egypt	IUD type: Hormonal	150	Hormonal	Vaginal	NR	At 6 weeks: 3/147 (2.0%)	After 6 mos: 9/134 (6.7%)	

Elsedeek, 2012	Non-randomized intervention	Egypt	IUD type: Hormonal	65	Hormonal	Cesarean	NR	NR	NR	**Up to 1 year** Spontaneous expulsion: 0 (0%)
Elsedeek, 2012	Non-randomized intervention	Egypt	IUD type: Copper	75	Copper	Cesarean	NR	NR	NR	**Up to 1 year** Spontaneous expulsion: 5 (6.7%)
Elshamy, 2021	Non-randomized intervention	Egypt	IUD type: Copper	550	Copper	Vaginal	NR	Complete: 25/550 (4.5%) Partial: 8/550 (1.5%)	Cumulative: 50/550 (9.0%) Complete: 11/550 (2.0%) Partial: 6/550 (1.1%)	NR
Elshamy, 2021	Non-randomized intervention	Egypt	IUD type: Hormonal	550	Hormonal	Vaginal	NR	Complete: 41/550 (7.5%) Partial: 11/550 (2.0%)	Cumulative: 77/550 (14.0%) Complete: 19/550 (2.0%) Partial: 6/550 (1.1%)	NR
Eluwa 2016	Cross-sectional	Nigeria	Overall	728	Copper	NR	NR	At 6 weeks: 25/300 (8.3%)	NR	NR
Espey, 2021	Non-randomized intervention	12,068	Copper	Both	10 min–48 h	Both	NR	At 6 weeks: 77/3,372 (2.3%)	NR	NR
Fatema, 2018	Non-randomized intervention	Bangladesh	Overall	370	NR	Both	NR	At 6 weeks: 7/120 (5.8%) 120 patients were followed up to this timepoint	NR	NR
Gueye, 2013	Non-randomized intervention	Senegal	Overall	59	Copper	Cesarean	NR	At 1 month: 1/44 (2.2%) At 3 months: 0/41 (0%)	At 6 mos: 0/39 (0%)	NR
Gupta, 2014	Prospective observational	India	Overall	100	Copper	Both	NR	At 6 weeks: 9/92 (9.7%)	NR	NR
Gupta, 2018	Retrospective	India	Delivery type: CD	355	Copper	Cesarean	NR	NR	Up to 6 mos Spontaneous expulsion: 3 (0.8%)	NR

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Gupta, 2018	Retrospective	India	Delivery type: VD Insertion time: 10 min–48 h	247	Copper	Vaginal	NR	NR	Up to 6 mos Spontaneous expulsion: 7 (2.8%)	NR
Gupta, 2018	Retrospective	India	Delivery type: VD Insertion time: Up to 10 min	814	Copper	Vaginal	NR	NR	Up to 6 mos Spontaneous expulsion: 15 (1.8%)	NR
Gupta, 2015	Non-randomized intervention	India	Overall	150	Copper	Both	NR	At 6 weeks: NR (14.5%) At 3 months: NR (2.9%)	0	NR
Habib, 2020	Retrospective	Pakistan	Delivery type: Vaginal	60	Copper	Vaginal	NR	NR	2/60 (3.3%)	NR
Habib, 2020	Retrospective	Pakistan	Delivery type: Cesarean	60	Copper	Cesarean	NR	NR	4/60 (6.7%)	NR
Halder 2016	Non-randomized intervention	India	Delivery type: VD Insertion time: Up to 10 min	100	Copper	Vaginal	NR	NR	NR	6 weeks–18 mos: 4/100 (4%)
Halder 2016	Non-randomized intervention	India	Delivery type: CS	100	Copper	Cesarean	NR	NR	NR	6 weeks–18 mos: 2/100 (2%)
Harani, 2019	Prospective observational	India	Delivery type: CS	127	Copper	Cesarean	NR	Total: 3.9% Expulsion at 6 weeks: 1 (0.8%) Expulsion rate at 3 months: 4 (3.1%)	NR	NR
Harani, 2019	Prospective observational	India	Delivery type: VD	127	Copper	Vaginal	NR	Total: 8.6% Expulsion at 6 weeks: 5 (3.9%) Expulsion rate at 3 months: 6 (4.7%)	NR	NR
Hooda, 2016	Non-randomized intervention	India	Overall	593	Copper	Both	NR	At 6 weeks: 9/171 (5.3%)	NR	NR
Ifitikhar, 2019	Prospective observational	Pakistan	Overall	372	NR	Both	NR	At 6 weeks: 15/372 (4.2%)	NR	NR

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Ingabire, 2018	Non-randomized intervention	Rwanda	Overall	9,020	Copper	Both	NR	10 days–6 weeks: 77/1,399 (5.5%) Among 1,399 women who attended follow-up	NR	NR
Jairaj, 2016	Non-randomized intervention	India	Overall	370	NR	Both	NR	At 6 weeks: 5/62 (8.1%)	NR	NR
Jakhar, 2019	Prospective observational	India	Overall	200	Copper	Cesarean	NR	At 6 weeks Expulsion: 3 (1.5%)	At 6 mos Expulsion: 5 (2.5%)	NR
Kant, 2016	Retrospective	India	Overall	611	Copper	Vaginal	NR	At 6 weeks: 23/130 (17.7%)	NR	NR
Khan, 2018	Non-randomized intervention	Pakistan	Overall	500	Copper	Both	NR	NR	1.5 mos–6 mos: 29/500 (5.8%)	NR
Khan, 2020	RCT	Pakistan	Delivery type: VD	76	Copper	Vaginal	NR	1/76 (1.3%)	NR	NR
Khan, 2020	RCT	Pakistan	Delivery type: CS	76	Copper	Cesarean	NR	2/76 (2.6%)	NR	NR
Khurshid, 2020	Prospective observational	India	Insertion time: Within 48 hours	238	Copper	Vaginal	NR	**At 6 weeks** Cumulative expulsion rate: 19 (8.7%) Interval expulsion rate: 19 (8.7%)	**At 6 months** Cumulative expulsion rate: 29 (14.5%) Interval expulsion rate: 10 (5.8%)	**At 12 mos** Cumulative expulsions: 33 (17.3%) Interval expulsions: 4 (2.8%)
Kumar, 2014	Prospective observational	India	Overall	2,733	Copper	Both	NR	At 6 weeks: 63/1,730 (3.6%)	NR	NR
Kumar, 2019	Retrospective	India	Overall	844	Copper	Both	NR	Before 6 weeks: 4.7%	Between 6 weeks and 6 mos: 2.1%	**At 12 mos** Accumulative expulsion: 7.5% **From 6–12 mos:** 0.7%
Lerma, 2020	Cross-sectional	India	Insertion time: Within 10 min	93	Copper	Vaginal	NR	Total: 8.6% **6–8 weeks** Complete: 3/93 (3.2%)	NR	NR

								Partial: 5/93 (5.4%)		
Lerma, 2020	Cross-sectional	India	Insertion time: 10 min–48 h	467	Copper	Vaginal	NR	Total: 16.3% **6–8 weeks** Complete: 35/467 (7.5%) Partial: 41/467 (8.8%)	NR	NR
Lester, 2015	RCT	Uganda	Insertion time: Within 10 min	34	Copper	Cesarean	NR	At 6 weeks: 1/34 (2.9%)	NR	NR
Makins 2018	Non-randomized intervention	Sri Lanka, India, Nepal, Bangladesh, Tanzania, Kenya	Overall	725,647	Copper	Both	NR	At 6 weeks: 2.6%	NR	NR
Mani, 2018	Prospective observational	India	Insertion time: Within 10 min	100	Copper	Both	NR	At 6 weeks Expulsion: 0 (0%) At 3 months Expulsion: 1/100 (1%)	3–6 mos Expulsion: 1/100 (1%)	NR
Mani, 2018	Prospective observational	India	Insertion time: 10 min–48 h	100	Copper	Both	NR	At 6 weeks Expulsion: 0 (0%) At 3 months Expulsion: 1/100 (1%)	3–6 mos Expulsion: 2/100 (2%)	NR
Mishra, 2014	Non-randomized intervention	India	Overall	564	Copper	Both	NR	**Within 7 days:** 3/434 (0.69) **Between 7 days–4 weeks:** 33/434 (7.60) Total: 7.69%	After 4 weeks: 3/434 (0.69%)	NR
Mishra, 2017	Retrospective	India	Overall	736	Copper	Both	NR	At 4 weeks: 46/736 (6.3%)	NR	NR
Muganyizi 2018	Prospective observational	Tanzania	Overall	40,470	Copper	Vaginal	NR	At 6 weeks: 14/596 (2.3%)	NR	NR
Ndegwa, 2014	RCT	Kenya	Overall	127	NR	NR	NR	At 6 weeks: 2/58 (3.4%)	NR	NR
Ngonzi, 2021	Prospective observational	Uganda	Overall	167	Copper	Vaginal	NR	At 6 weeks: 13/144 (9%)	NR	NR

								Partial expulsion: 11/144 (7.6%) Complete expulsion: 2/144 (1.4%)		
N'Guessan, 2020	Retrospective	Ivory Coast	Overall	128	Copper	Both	NR	Up to 6 weeks HIV+: 2/67 (3%)	NR	NR
Nisar, 2020	Retrospective	Pakistan	Overall	8,003	NR	Both	NR	At 6 weeks: 83/1,311 (6.3%)	NR	NR
Pfitzer, 2015	Cross-sectional	Guinea	Country: Guinea	20,699	Copper	Both	NR	At 6 weeks Expulsion: 35 (1.7%)	NR	NR
Pfitzer, 2015	Cross-sectional	India	Country: India	1,767,880	Copper	Both	NR	At 6 weeks Expulsion: 989 (2.7%)	NR	NR
Pfitzer, 2015	Cross-sectional	Ethiopia	Country: Ethiopia	16,389	Copper	Both	NR	At 6 weeks Expulsion: 12 (3.6%)	NR	NR
Pfitzer, 2015	Cross-sectional	The Philippines	Country: The Philippines	33,900	Copper	Both	NR	At 6 weeks Expulsion: 11 (1.7%)	NR	NR
Pfitzer, 2015	Cross-sectional	Pakistan	Country: Pakistan	34,502	Copper	Both	NR	At 6 weeks Expulsion: 10 (3.7%)	NR	NR
Pleah 2016	Cross-sectional	Benin, Ivory Coast, Niger, Senegal, Togo (West and Central Africa)	Overall	15,394	NR	Both	NR	**4–6 weeks:** 19/2,269 (0.8%) **2014:** 1/748 (0.5%) **2015:** 18/1,521 (1.2%)	NR	NR
Puri, 2020	RCT	Nepal	Overall	75,571	Copper	Both	NR	NR (8.5%)	NR	NR (11.1%)
Qazi, 2020	Prospective observational	Pakistan	Overall	6,283	Copper	Both	NR	10/200 (5%)	NR	NR
Rani, 2015	Non-randomized intervention	India	Overall	99	Copper	Vaginal	NR	NR	2/99 (2.02%)	NR
Rwegoshora, 2020	Non-randomized intervention	Tanzania	Overall	20,276	Copper	Both	NR	NR	NR	11/511 (2.1%)

Shukla, 2012	Prospective observational	India	Overall	1,317	Copper	Both	NR	4–6 weeks: 117/1,037 (11.3%)	Cumulative expulsions at 6 mos: 10.68%	NR
Singal, 2021	Cross-sectional	India	Overall	4,012	NR	NR		NR (5.6%)	NR (5.7%)	NR (4.9%)
Singal, 2014	Prospective observational	India	Overall	300	Copper	Cesarean	NR	Total: 2.7% **At 1 month** Complete: 0/300 (0%) Partial: 4/300 (1.3%) **1–3 mos** Complete: 0/293 (0%) Partial: 4/293 (1.3%)	**3–6 mos** Total: 2.0% Complete: 4/289 (1.3%) Partial: 2/289 (0.7%)	Total: 0.7% **6–12 months** Complete: 2/289 (0.7%) Partial: 0/289 (0%)
Singh, 2021	Prospective observational	India	Insertion technique: Long inserter	292	Copper	Vaginal	NR	1/290 (0.3%) [calculated, NR in publication]	NR	NR
Singh, 2021	Prospective observational	India	Insertion technique: Conventional method	301	Copper	Vaginal	NR	5/296 (1.6%) [calculated, NR in publication]	NR	NR
Singh 2016	Non-randomized intervention	India	Overall	80	NR	Vaginal	NR	Total: 17.5% **6–8 weeks** Complete expulsion: 6/80 (7.5%) Partial expulsion: 8/80 (10%)	NR	NR
Sodje, 2016	Prospective observational	Nigeria	Overall	374	Copper	Both	NR	At 6 weeks 24/374 (6.4%)	NR	NR
Vishwakarma, 2020	Non-randomized intervention	India	Overall	1,029	Copper	Cesarean	NR	At 6 weeks: 23/1,029 (2.2%)	13/1,209 (1.2%)	NR
Wasim, 2018	Non-randomized intervention	Pakistan	Overall	3,012	Copper	Both	NR	NR	Expulsion: 75 (6%)	NR
Weerasekera 2018	Non-randomized intervention	Sri Lanka	Overall	184,433	NR	Both	NR	4–6 weeks	NR	NR

								Spontaneous expulsion: 68/2,328 (2.9%)		
Yadav, 2020	Retrospective	India	Overall	20,418	Copper	Both	NR	264/3,753 (7.0%)	NR	NR
Yadav, 2016	Cross-sectional	India	Overall	28,688	Copper	Both	NR	At 6 weeks: 792/28,688 (2.8%)	NR	NR
Zaman, 2020	Non-randomized intervention	Pakistan	Overall	140	Copper	NR	NR	NR	7/122 (5.7%)	NR

Key: CD – cesarean delivery; h – hour; IUD – intrauterine device; min – minute; mos – months; NR – not reported; PPIUD – postpartum intrauterine device; RCT – randomized controlled trial; VD – vaginal delivery.