



كلية الطب
والصيدلة - مراكش
FACULTÉ DE MÉDECINE
ET DE PHARMACIE - MARRAKECH

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Thesis N°149

**Women's Knowledge of Contraception: Assessment
and Recommendations for an Educational Initiative in
the Obstetrics and Gynecology Department of
Mohammed the VI University Hospital, Marrakesh**

THESIS

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KEYWORDS :

Contraception – Contraceptive knowledge – Family planning – Knowledge level

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الْحَمْدُ لِلَّهِ رَبِّ الْعَالَمِينَ ۝ الرَّحْمَنِ الرَّحِيمِ ۝

مَالِكِ يَوْمِ الدِّينِ ۝ إِنَّا نَعْبُدُكَ وَإِنَّا نَكْتُمُ

نَسْتَعِينُ ۝ اهْدِنَا الصِّرَاطَ الْمُسْتَقِيمَ ۝

صِرَاطَ الَّذِينَ أَنْعَمْتَ عَلَيْهِمْ ۝ غَيْرِ الْمَغْضُوبِ عَلَيْهِمْ وَلَا الضَّالِّينَ ۝

سُورَةُ الْفَاتِحَةِ

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ

الْحَكِيمُ ﴿٣٢﴾

صَدَقَ اللَّهُ الْعَظِيمُ

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿ وَقُلْ رَبِّ أَدْخِنِيْ مُدْخَلَ صِدْقٍ
وَأَخْرِجْنِيْ مُخْرَجَ صِدْقٍ وَاجْعَلْ لِّيْ
مِنْ لَّدُنْكَ سُلْطٰنًا نَّصِيرًا ﴾



Serment d'Hippocrate

Au moment d'être admis à devenir membre de la profession médicale, je m'engage solennellement à consacrer ma vie au service de l'humanité.

Je traiterai mes maîtres avec le respect et la reconnaissance qui leur sont dus.

Je pratiquerai ma profession avec conscience et dignité. La santé de mes malades sera mon premier but.

Je ne trahirai pas les secrets qui me seront confiés. Je maintiendrai par tous les moyens en mon pouvoir l'honneur et les nobles traditions de la profession médicale.

Les médecins seront mes frères.

Aucune considération de religion, de nationalité, de race, aucune considération politique et sociale, ne s'interposera entre mon devoir et mon patient.

Je maintiendrai strictement le respect de la vie humaine dès sa conception. Même sous la menace, je n'userai pas mes connaissances médicales d'une façon contraire aux lois de l'humanité.

Je m'y engage librement et sur mon honneur.

Déclaration Genève, 1948





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**Liste nominative du personnel enseignants chercheurs
permanant**

N°	Nom et Prénom	Cadre	Spécialités
01	ZOUHAIR Said (Doyen)	P.E.S	Microbiologie
02	CHOULLI Mohamed Khaled	P.E.S	Neuro pharmacologie
03	BOUSKRAOUI Mohammed	P.E.S	Pédiatrie
04	KHATOURI Ali	P.E.S	Cardiologie
05	NIAMANE Radouane	P.E.S	Rhumatologie
06	AIT BENALI Said	P.E.S	Neurochirurgie
07	KRATI Khadija	P.E.S	Gastro-entérologie
08	SOUMMANI Abderraouf	P.E.S	Gynécologie-obstétrique
09	RAJI Abdelaziz	P.E.S	Oto-rhino-laryngologie
10	SARF Ismail	P.E.S	Urologie
11	MOUTAOUAKIL Abdeljalil	P.E.S	Ophtalmologie
12	AMAL Said	P.E.S	Dermatologie
13	ESSAADOUNI Lamiaa	P.E.S	Médecine interne

14	MANSOURI Nadia	P.E.S	Stomatologie et chirurgie maxillo faciale
15	MOUTAJ Redouane	P.E.S	Parasitologie
16	AMMAR Haddou	P.E.S	Oto-rhino-laryngologie
17	EL FEZZAZI Redouane	P.E.S	Chirurgie pédiatrique
18	YOUNOUS Said	P.E.S	Anesthésie-réanimation
19	BENELKHAIAT BENOMAR Ridouan	P.E.S	Chirurgie générale
20	ASMOUKI Hamid	P.E.S	Gynécologie-obstétrique
21	BOUMZEBRA Drissi	P.E.S	Chirurgie Cardio-vasculaire
22	CHELLAK Saliha	P.E.S	Biochimie-chimie
23	LOUZI Abdelouahed	P.E.S	Chirurgie-générale
24	AIT-SAB Imane	P.E.S	Pédiatrie
25	GHANNANE Houssine	P.E.S	Neurochirurgie
26	OULAD SAIAD Mohamed	P.E.S	Chirurgie pédiatrique
27	DAHAMI Zakaria	P.E.S	Urologie
28	EL HATTAOUI Mustapha	P.E.S	Cardiologie
29	AMINE Mohamed	P.E.S	Epidémiologie clinique
30	EL ADIB Ahmed Rhassane	P.E.S	Anesthésie-réanimation
31	ELFIKRI Abdelghani	P.E.S	Radiologie
32	ARSALANE Lamiae	P.E.S	Microbiologie-virologie
33	KAMILI El Ouafi El Aouni	P.E.S	Chirurgie pédiatrique
34	MAOULAININE Fadl mrabih rabou	P.E.S	Pédiatrie (Néonatalogie)
35	MATRANE Aboubakr	P.E.S	Médecine nucléaire
36	ADMOU Brahim	P.E.S	Immunologie
37	CHERIF IDRISSE EL GANOUNI Najat	P.E.S	Radiologie
38	MANOUDI Fatiha	P.E.S	Psychiatrie
39	BOURROUS Monir	P.E.S	Pédiatrie
40	TASSI Noura	P.E.S	Maladies infectieuses
41	NEJMI Hicham	P.E.S	Anesthésie-réanimation
42	LAOUAD Inass	P.E.S	Néphrologie
43	FOURAJI Karima	P.E.S	Chirurgie

44	BOUKHIRA Abderrahman	P.E.S	Biochimie–chimie
45	KHALLOUKI Mohammed	P.E.S	Anesthésie–réanimation
46	BSISS Mohammed Aziz	P.E.S	Biophysique
47	EL OMRANI Abdelhamid	P.E.S	Radiothérapie
48	SORAA Nabila	P.E.S	Microbiologie–virologie
49	KHOUCHANI Mouna	P.E.S	Radiothérapie
50	JALAL Hicham	P.E.S	Radiologie
51	EL ANSARI Nawal	P.E.S	Endocrinologie et maladies métaboliques
52	AMRO Lamyae	P.E.S	Pneumo–phtisiologie
53	OUALI IDRISSE Mariem	P.E.S	Radiologie
54	ZAHLANE Mouna	P.E.S	Médecine interne
55	BENJILALI Laila	P.E.S	Médecine interne
56	NARJIS Youssef	P.E.S	Chirurgie générale
57	RABBANI Khalid	P.E.S	Chirurgie générale
58	SAMLANI Zouhour	P.E.S	Gastro–entérologie
59	LAGHMARI Mehdi	P.E.S	Neurochirurgie
60	ABOUSSAIR Nisrine	P.E.S	Génétique
61	BENCHAMKHA Yassine	P.E.S	Chirurgie réparatrice et plastique
62	CHAFIK Rachid	P.E.S	Traumato–orthopédie
63	ABKARI Imad	P.E.S	Traumato–orthopédie
64	EL BOUIHI Mohamed	P.E.S	Stomatologie et chirurgie maxillo faciale
65	LAKMICHI Mohamed Amine	P.E.S	Urologie
66	AGHOUTANE El Mouhtadi	P.E.S	Chirurgie pédiatrique
67	HOCAR Ouafa	P.E.S	Dermatologie
68	EL KARIMI Saloua	P.E.S	Cardiologie
69	EL BOUCHTI Imane	P.E.S	Rhumatologie
70	QAMOUSS Youssef	P.E.S	Anesthésie réanimation
71	ZYANI Mohammad	P.E.S	Médecine interne
72	QACIF Hassan	P.E.S	Médecine interne
73	BEN DRISS Laila	P.E.S	Cardiologie
74	MOUFID Kamal	P.E.S	Urologie

75	EL BARNI Rachid	P.E.S	Chirurgie générale
76	ABOUCHADI Abdeljalil	P.E.S	Stomatologie et chirurgie maxillo faciale
77	BASRAOUI Dounia	P.E.S	Radiologie
78	RAIS Hanane	P.E.S	Anatomie Pathologique
79	BELKHOUE Ahlam	P.E.S	Rhumatologie
80	ZAOUI Sanaa	P.E.S	Pharmacologie
81	MSOUGAR Yassine	P.E.S	Chirurgie thoracique
82	EL MGHARI TABIB Ghizlane	P.E.S	Endocrinologie et maladies métaboliques
83	DRAISS Ghizlane	P.E.S	Pédiatrie
84	EL IDRISSE SLITINE Nadia	P.E.S	Pédiatrie
85	RADA Nouredine	P.E.S	Pédiatrie
86	BOURRAHOUE Aicha	P.E.S	Pédiatrie
87	MOUAFFAK Youssef	P.E.S	Anesthésie-réanimation
88	ZIADI Amra	P.E.S	Anesthésie-réanimation
89	ANIBA Khalid	P.E.S	Neurochirurgie
90	TAZI Mohamed Ilias	P.E.S	Hématologie clinique
91	ROCHDI Youssef	P.E.S	Oto-rhino-laryngologie
92	FADILI Wafaa	P.E.S	Néphrologie
93	ADALI Imane	P.E.S	Psychiatrie
94	ZAHLANE Kawtar	P.E.S	Microbiologie- virologie
95	LOUHAB Nisrine	P.E.S	Neurologie
96	HAROU Karam	P.E.S	Gynécologie-obstétrique
97	BOUKHANNI Lahcen	P.E.S	Gynécologie-obstétrique
98	FAKHIR Bouchra	P.E.S	Gynécologie-obstétrique
99	BENHIMA Mohamed Amine	P.E.S	Traumatologie-orthopédie
100	HACHIMI Abdelhamid	P.E.S	Réanimation médicale
101	EL KHAYARI Mina	P.E.S	Réanimation médicale
102	AISSAOUI Younes	P.E.S	Anesthésie-réanimation
103	ATMANE El Mehdi	P.E.S	Radiologie
104	EL AMRANI Moulay Driss	P.E.S	Anatomie
105	BELBARAKA Rhizlane	P.E.S	Oncologie médicale

106	ALJ Soumaya	P.E.S	Radiologie
107	OUBAHA Sofia	P.E.S	Physiologie
108	EL HAOUATI Rachid	P.E.S	Chirurgie Cardio-vasculaire
109	BENALI Abdeslam	P.E.S	Psychiatrie
110	MLIHA TOUATI Mohammed	P.E.S	Oto-rhino-laryngologie
111	MARGAD Omar	P.E.S	Traumatologie-orthopédie
112	KADDOURI Said	P.E.S	Médecine interne
113	ZEMRAOUI Nadir	P.E.S	Néphrologie
114	EL KHADER Ahmed	P.E.S	Chirurgie générale
115	DAROUASSI Youssef	P.E.S	Oto-rhino-laryngologie
116	BENJELLOUN HARZIMI Amine	P.E.S	Pneumo-phtisiologie
117	FAKHRI Anass	P.E.S	Histologie-embryologie cytogénétique
118	SALAMA Tarik	P.E.S	Chirurgie pédiatrique
119	CHRAA Mohamed	P.E.S	Physiologie
120	ZARROUKI Youssef	P.E.S	Anesthésie-réanimation
121	AIT BATAHAR Salma	P.E.S	Pneumo-phtisiologie
122	ADARMOUCH Latifa	P.E.S	Médecine communautaire (médecine préventive, santé publique et hygiène)
123	BELBACHIR Anass	P.E.S	Anatomie pathologique
124	HAZMIRI Fatima Ezzahra	P.E.S	Histologie-embryologie cytogénétique
125	EL KAMOUNI Youssef	P.E.S	Microbiologie-virologie
126	EL MEZOUARI El Mostafa	P.E.S	Parasitologie mycologie
127	SERGHINI Issam	P.E.S	Anesthésie-réanimation
128	ABIR Badreddine	P.E.S	Stomatologie et chirurgie maxillo faciale
129	ZIDANE Moulay Abdelfettah	P.E.S	Chirurgie thoracique
130	LAHKIM Mohammed	P.E.S	Chirurgie générale
131	MOUHSINE Abdelilah	P.E.S	Radiologie
132	TOURABI Khalid	P.E.S	Chirurgie réparatrice et plastique
133	BELHADJ Ayoub	P.E.S	Anesthésie-réanimation
134	BOUZERDA Abdelmajid	P.E.S	Cardiologie

135	ABDELFETTAH Youness	P.E.S	Rééducation et réhabilitation fonctionnelle
136	REBAHI Houssam	P.E.S	Anesthésie-réanimation
137	BENNAOUI Fatiha	P.E.S	Pédiatrie
138	ZOUIZRA Zahira	P.E.S	Chirurgie Cardio-vasculaire
139	SEBBANI Majda	P.E.S	Médecine Communautaire (Médecine préventive, santé publique et hygiène
140	FENANE Hicham	P.E.S	Chirurgie thoracique
141	ABDOU Abdessamad	P.E.S	Chirurgie Cardio-vasculaire
142	HAMMOUNE Nabil	P.E.S	Radiologie
143	ESSADI Ismail	P.E.S	Oncologie médicale
144	ALJALIL Abdelfattah	P.E.S	Oto-rhino-laryngologie
145	LAFFINTI Mahmoud Amine	P.E.S	Psychiatrie
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148	JANAH Hicham	P.E.S	Pneumo-phtisiologie
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154	BELFQUIH Hatim	P.E.S	Neurochirurgie
155	AKKA Rachid	P.E.S	Gastro-entérologie
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161	LOQMAN Souad	MC Hab	Microbiologie et Toxicologie
162	DAMI Abdallah	Pr Ag	Médecine Légale

163	AZIZ Zakaria	Pr Ag	Stomatologie et chirurgie maxillo faciale
164	ELOUARDI Youssef	Pr Ag	Anesthésie-réanimation
165	LAHLIMI Fatima Ezzahra	Pr Ag	Hématologie clinique
166	NASSIH Houda	Pr Ag	Pédiatrie
167	LAHMINI Widad	Pr Ag	Pédiatrie
168	BENANTAR Lamia	Pr Ag	Neurochirurgie
169	EL FADLI Mohammed	Pr Ag	Oncologie médicale
170	AIT ERRAMI Adil	Pr Ag	Gastro-entérologie
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177	HAJJI Fouad	Pr Ag	Urologie
178	JALLAL Hamid	Pr Ag	Cardiologie
179	ZBITOU Mohamed Anas	Pr Ag	Cardiologie
180	RAISSI Abderrahim	Pr Ag	Hématologie clinique
181	EL HAKKOUNI Awatif	Pr Ag	Parasitologie mycologie
182	ACHKOUN Abdessalam	Pr Ag	Anatomie
183	DARFAOUI Mouna	Pr Ag	Radiothérapie
184	EL-QADIRY Rabiyy	Pr Ag	Pédiatrie
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189	ABOULMAKARIM Siham	Pr Ag	Biochimie
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194	MEFTAH Azzelarab	Pr Ag	Endocrinologie et maladies métaboliques
195	BELLASRI Salah	Pr Ag	Radiologie
196	ATMANI Nouredine	Pr Ag	Chirurgie Cardio-vasculaire
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198	DOUIREK Fouzia	Pr Ag	Anesthésie-réanimation
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200	RHEZALI Manal	Pr Ag	Anesthésie-réanimation
201	ABALLA Najoua	Pr Ag	Chirurgie pédiatrique
202	MOUGUI Ahmed	Pr Ag	Rhumatologie
203	ZOUITA Btissam	Pr Ag	Radiologie
204	HAZIME Raja	Pr Ag	Immunologie
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210	CHETOUI Abdelkhalek	Pr Ag	Cardiologie
211	ROUKHSI Redouane	Pr Ag	Radiologie
212	ARROB Adil	Pr Ag	Chirurgie réparatrice et plastique
213	BOUHAMIDI Ahmed	Pr Ag	Dermatologie
214	YANISSE Siham	Pr Ag	Pharmacie galénique
215	KHALLIKANE Said	Pr Ag	Anesthésie-réanimation
216	ZIRAOUI Oualid	Pr Ag	Chimie thérapeutique
217	IDALENE Malika	Pr Ag	Maladies infectieuses
218	LACHHAB Zineb	Pr Ag	Pharmacognosie
219	ABOUDOURIB Maryem	Pr Ag	Dermatologie
220	AHBALA Tariq	Pr Ag	Chirurgie générale
221	EL AOUAME Amal	Pr Ag	Orthodontie et orthopédie dento-faciale
222	WARDA Karima	MCHab	Microbiologie
223	SBAI Asma	MCHab	Informatique

224	EL AMIRI My Ahmed	MCHab	Chimie de Coordination bio-organique
225	ABISSY Meriem	MC	Microbiologie
226	SLIOUI Badr	MC	Radiologie
227	CHEGGOUR Mouna	MC	Biochimie
228	BELARBI Marouane	MC	Néphrologie
229	LALAOUI Abdessamad	MC	Pédiatrie
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237	JEBRANE Ilham	MC	Pharmacologie
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240	AIT LHAJ El Houssaine	MC	Ophtalmologie
241	RAMRAOUI Mohammed-Es-said	MC	Chirurgie générale
242	EL MOUHAFID Faisal	MC	Chirurgie générale
243	AHMANNNA Hussein-choukri	MC	Radiologie
244	AIT M'BAREK Yassine	MC	Neurochirurgie
245	ELMASRIOUI Joumana	MC	Physiologie
246	FOURA Salma	MC	Chirurgie pédiatrique
247	LASRI Najat	MC	Hématologie clinique
248	BOUKTIB Youssef	MC	Radiologie
249	MOUROUTH Hanane	MC	Anesthésie-réanimation
250	BOUZID Fatima zahrae	MC	Génétique
251	MRHAR Soumia	MC	Pédiatrie
252	QUIDDI Wafa	MC	Hématologie
253	BEN HOUMICH Taoufik	MC	Microbiologie-virologie
254	FETOUI Imane	MC	Pédiatrie

255	FATH EL KHIR Yassine	MC	Traumato-orthopédie
256	NASSIRI Mohamed	MC	Traumato-orthopédie
257	AIT-DRISS Wiam	MC	Maladies infectieuses
258	AIT YAHYA Abdelkarim	MC	Cardiologie
259	DIANI Abdelwahed	MC	Radiologie
260	AIT BELAID Wafae	MC	Chirurgie générale
261	ZTATI Mohamed	MC	Cardiologie
262	HAMOUCHE Nabil	MC	Néphrologie
263	ELMARDOULI Mouhcine	MC	Chirurgie Cardio-vasculaire
264	BENNIS Lamiae	MC	Anesthésie-réanimation
265	BENDAOUD Layla	MC	Dermatologie
266	HABBAB Adil	MC	Chirurgie générale
267	CHATAR Achraf	MC	Urologie
268	OUMGHAR Nezha	MC	Biophysique
269	HOUMAID Hanane	MC	Gynécologie-obstétrique
270	YOUSFI Jaouad	MC	Gériatrie
271	NACIR Oussama	MC	Gastro-entérologie
272	BABACHEIKH Safia	MC	Gynécologie-obstétrique
273	ABDOURAFIQ Hasna	MC	Anatomie
274	TAMOUR Hicham	MC	Anatomie
275	IRAQI HOUSSAINI Kawtar	MC	Gynécologie-obstétrique
276	EL FAHIRI Fatima Zahrae	MC	Psychiatrie
277	BOUKIND Samira	MC	Anatomie
278	LOUKHNATI Mehdi	MC	Hématologie clinique
279	ZAHROU Farid	MC	Neurochirurgie
280	MAAROUFI Fathillah Elkarim	MC	Chirurgie générale
281	EL MOUSSAOUI Soufiane	MC	Pédiatrie
282	BARKICHE Samir	MC	Radiothérapie
283	ABI EL AALA Khalid	MC	Pédiatrie
284	AFANI Leila	MC	Oncologie médicale
285	EL MOULOUA Ahmed	MC	Chirurgie pédiatrique
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Christopher McCandless*

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ABBREVIATIONS



List of abbreviations

IUD	:	intrauterine device
STIs	:	sexually transmitted infections
KAP	:	knowledge, attitude and practices
LAM	:	Lactational amenorrhea method



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INTRODUCTION



Family planning is widely considered one of the most significant public health achievements of the past decades[1]. It is a fundamental component of reproductive health and plays an essential role in reducing maternal and neonatal morbidity and mortality.

Improving access to accurate information and contraceptive methods can substantially reduce unintended pregnancies and their associated consequences, including adverse socioeconomic outcomes, poor maternal health, and complications related to unsafe abortions[2].

Access to comprehensive information on sexual and reproductive health, including family planning, is recognized as a fundamental human right and an essential component of the right to health. Insufficient knowledge regarding contraceptive methods therefore represents not only a determinant of unintended pregnancies but also an indicator of unmet reproductive health rights[3].

Despite the progress achieved in expanding access to family planning services, gaps in knowledge about contraceptive methods remain a significant challenge in many settings.

Assessing women's knowledge of contraception is essential to identify misconceptions, determine educational needs, and guide targeted public health interventions to improving reproductive health outcomes.

In Morocco, although family planning programs have been implemented for several decades, limited research has specifically evaluated women's level of knowledge regarding contraceptive methods. Systematic assessment of this knowledge is therefore necessary to better understand existing informational gaps and to support the development of effective educational strategies adapted to the local context.

At the global level, it is estimated that approximately 121 million unintended pregnancies occur each year, representing nearly half of all pregnancies worldwide[4]. A substantial proportion of these pregnancies results from the non-use or incorrect use of contraceptive methods, often linked to misinformation, misconceptions, or insufficient counselling[5].

Understanding women's level of knowledge regarding available contraceptive methods is therefore a critical step toward improving reproductive health outcomes and strengthening family planning programs.

In this context, we conducted a study among women admitted to the department of obstetrics and gynecology at Mohammed VI university hospital to assess their level of knowledge regarding contraceptive methods. The objectives of this study were as follows:

- The primary objective of this study was to assess the level of knowledge regarding contraceptive methods among women attending the obstetrics and gynecology department of Mohammed VI university hospital in Marrakesh
- The study also aimed to identify sociodemographic and reproductive factors associated with contraceptive knowledge level, the study also explored whether the level of contraceptive knowledge was associated with unintended pregnancies and the age at first childbirth
- Finally, the findings of this study aim to contribute to the development of educational and patient-centered informational tools that could improve women's understanding of contraceptive methods and support more informed reproductive health decisions.



MATERIALS AND METHODOLOGY



I. Study design:

This is a descriptive and analytical cross-sectional study conducted within the obstetrics and gynecology department of Mohammed the VI university hospital in Marrakesh.

It aimed to assess the level of knowledge regarding contraceptive methods among women admitted in the obstetrics and gynecology department during the study period and the association between selected independent variables and the knowledge level.

II. Study setting and duration:

The study was conducted in the obstetrics unit of the department of obstetrics and gynecology at Mohammed VI university hospital in Marrakesh, Morocco. Data collection was carried out from December 2025 to February 2026.

III. Study population :

1. Inclusion criteria: :

- Women admitted to the obstetrics unit of the department of obstetrics and gynecology at Mohammed VI university hospital of Marrakesh for any medical, obstetrical or surgical indication during the study period, who provided informed consent to participate, were eligible for inclusion.

2. Exclusion criteria:

Women were excluded if they:

- Declined to provide informed consent.
- Were unable to participate due to a critical medical condition.

IV. Sampling method and sample size:

A non-probability convenience sampling technique was adopted. Eligible women admitted to the department of obstetrics and gynecology during the study period were approached and invited to participate. Recruitment was conducted progressively until the predetermined sample size was reached.

The minimum required sample size calculated was 324 participants to ensure a 95% confidence level and a 5% margin of error. The calculation was based on an anticipated prevalence of poor contraceptive knowledge of 30.2%, as reported in the original study from which the questionnaire was adopted, conducted in Saudi Arabia[6].

the formula used was:

$$n = \frac{Z^2 \times p \times (1 - p)}{d^2}$$

Where:

- N represents the required sample size,
- Z is the z-score corresponding to the desired confidence level (1.96 for 95% confidence),
- P is the estimated prevalence,
- D is the margin of error.

V. Data collection tool:

1. Selection of the data collection instrument:

The primary data collection tool for this study was a validated questionnaire assessing women's knowledge of contraception, including a scoring system to categorize knowledge as poor or good.

To select an appropriate instrument, a systematic bibliographic search was conducted using Google scholar and PubMed with the keywords: *"validated questionnaire," "women's knowledge," "contraception," "contraceptive knowledge," "knowledge of contraception," "family planning knowledge," "survey," "arabic version," "reproductive health," "women's awareness,"* and *"knowledge, attitude and practices (KAP) study."*

These terms were combined using Boolean operators (and/or) to refine the search and identify relevant studies assessing the knowledge of contraception, particularly those involving validated tools and instruments available in arabic.

A total of ten relevant studies were identified. The questionnaires were reviewed and compared based on predefined criteria. The following parameters were considered:

1.1. Validation status:

preference was given to instruments that had undergone formal validation processes, including assessment of reliability and construct validity. Questionnaires without clearly described validation procedures were considered methodologically less rigorous and therefore less suitable for inclusion.

1.2. Target population:

Particular attention was paid to the population for which the instrument was originally developed. Questionnaires designed exclusively for university student populations were considered less appropriate, as the present study was conducted among women admitted to a hospital-based obstetrics and gynecology department with heterogeneous educational backgrounds.

1.3. Scoring system and knowledge categorization:

The presence of a clearly defined scoring method and standardized knowledge classification (e.g., good vs. Poor knowledge) was considered essential. Instruments providing only raw numerical scores without predefined interpretative cutoffs were considered less practical for categorical analytical comparisons.

1.4. Language availability:

Availability of a validated arabic version was considered a critical criterion. Instruments not validated in arabic or without accessible validated translated versions were excluded to avoid translation bias and preserve measurement validity.

1.5. Scope of assessment:

The structure of the questionnaires was evaluated, particularly whether they assessed knowledge alone or included additional domains such as attitude and practice. Instruments with a clearly structured knowledge component suitable for isolated analysis were prioritized.

1.6. Cultural and regional relevance:

Contextual applicability was also considered. Instruments developed and validated in sociocultural settings comparable to our study population were regarded as more appropriate for ensuring external validity.

A comparative table was developed to facilitate this evaluation (table I).

Table I : methodological comparison of contraceptive knowledge assessment instruments identified in the literature

Instrument	Country and year	Target population	Validation status	Scoring system and categorization	Language availability	Suitability for present study
Contraceptive knowledge assessment (CKA)[7]	Usa, 2016	English-speaking, literate men and women from 15 to 45 years old	Validated	No clearly standardized scoring system	English only	Excluded: not culturally adapted; no arabic version, no scale
Knowledge on methods of contraception (KMC-25)[8]	Malaysia, 2021	University students	Validated	Yes	English only	Excluded: no validated arabic version; student population
Egypt KAPB study[9]	Egypt, 2022	Married women (18-49years old)	Validated	Yes	-English -Arabic (validated version unavailable; author contacted without response)	Excluded: arabic version not accessible
Al-Qunfudah KAP study[6]	Saudi Arabia, 2023	Married women of reproductive age	Validated	Yes	-English -Arabic (validated version provided by author)	Selected: validated arabic version available; culturally relevant
Al-Ahsa KAP study[10]	Saudi Arabia, 2023	All adult saudi individuals of both genders attending primary health care centers	No (modified tool)	No clearly standardized scoring system	-Arabic -English	Excluded: modified tool; unclear scoring

Women's Knowledge of Contraception: Assessment and Recommendations for an Educational Initiative in the Obstetrics and Gynecology Department of Mohammed the VI University Hospital, Marrakesh

Instrument	Country and year	Target population	Validation status	Scoring system and categorization	Language availability	Suitability for present study
Sexuality and contraception knowledge instrument (sexcontraknow-instrument)[11]	Spain, 2019	University students	Validated	Rasch model-based scoring, but did not provide predefined categorical classifications of knowledge levels	-Spanish -English	Excluded: student population; not culturally comparable; no clear scoring; no arabic version
Lebanon university study[12]	Lebanon, 2009	University students	Not validated	No standardized scoring system	-English -Arabic (unavailable)	Excluded: student population; not validated
Abu Dhabi KAP study[13]	UAE, 2019	Women of reproductive age	Not validated	Yes	-English -Arabic (unavailable)	Excluded: arabic version unavailable, not validated
Ethiopia postpartum KAP study[14]	Ethiopia, 2021	Postpartum women	Partially validated	Yes	-English -Afan oromo	Excluded: no arabic version, partially validated
Nigeria undergraduate study[15]	Nigeria, 2023	University female students	Not validated	Yes	English	Excluded: not validated, no arabic version

Among the ten identified instruments, three questionnaires fulfilled the main methodological criteria. However, the Malaysian instrument (KMC-25)[8] had not been validated in arabic and was therefore excluded. Two remaining questionnaires [6,9] met all predefined criteria; nevertheless, their arabic versions were not publicly accessible.

The corresponding authors of both studies[6,9] were contacted to request access to the validated arabic version and permission for use. Only one corresponding author [6] responded positively, providing the validated arabic and english versions of the questionnaire and granting permission to use the instrument provided it was appropriately cited.

The original validated versions of the questionnaire are presented in appendix 1 (arabic version) and appendix 2 (english version).

2. Description of the selected questionnaire:

The questionnaire selected for use in the present study was the instrument developed in the al-Qunfudah knowledge, attitude and practices (KAP) study[6]. This tool was originally designed to assess knowledge, attitude, and practice regarding contraceptive methods among married females of reproductive age providing a validated framework for measuring these domains.

The instrument is a structured questionnaire composed of **41 items** organized into four main sections.

- **First section** with 11 questions: **sociodemographic and reproductive characteristics** of the participants (items 1–11). These include age, nationality, place of residence, educational level, occupation, family income, marital status, duration of marriage, number of pregnancies, number of living children, and birth spacing.
- **Second section** with 8 questions: **knowledge of contraceptive methods** (items 12–19). These questions evaluate participants' understanding of the purpose of contraception, awareness of different contraceptive methods, knowledge of the most effective methods, methods protecting against reproductive infections, permanent contraceptive methods, potential side effects, awareness of emergency contraception, and sources of information about family planning.

- **Third section** with 15 questions, explores **attitudes toward contraceptive use** (items 20–34). These questions examine perceptions regarding the impact of contraception on family dynamics and society, beliefs regarding birth spacing, views on family planning, and attitudes toward the use and promotion of contraceptive methods.
- **Fourth section** with 7 questions, investigates **practices related to contraceptive use** (items 35–41). This section includes questions regarding previous use of contraceptive methods, reasons for use or non-use, duration of contraceptive use, types of contraceptive methods used, experienced side effects, and whether contraceptives were obtained through medical prescription.

Although the main objective of the study was to assess women's knowledge of contraceptive methods, the attitude and practice sections of the original questionnaire were retained. These sections were included to allow **the analysis of possible associations** between contraceptive use, attitudes toward family planning, and the level of knowledge.

3. Supplementary questions added to the questionnaire:

In addition to the validated questionnaire, supplementary questions were added:

- **Additional demographic and reproductive variables** were included in the questionnaire to explore potential associations between these characteristics and the level of contraceptive knowledge. These variables included access to basic services (electricity, water, and internet), health insurance coverage, use of social media, access to nearby healthcare facilities, age at first childbirth, and the number of unwanted pregnancies.
- **Additional knowledge questions:** added to identify specific misconceptions about contraception including: time window for emergency contraception, what to do after forgetting a contraceptive pill, effect of contraceptive pills on long-term fertility, contraception use during breastfeeding, weight gain and hormonal contraception, effectiveness of irregular contraceptive use, duration of protection of the intrauterine device (IUD) and the effect of combining contraceptive methods

- **Two open-ended questions** were introduced to collect qualitative insights about difficulties faced when using contraceptive methods and suggestions to improve contraceptive education and awareness. These questions provide contextual information for future educational interventions.

This approach allowed the study not only to quantify women's knowledge using a validated instrument but also to capture detailed, context-specific insights to help in the development of educational interventions that are relevant, accurate, and patient-centered.

The final version of the questionnaire used in the study is presented in appendix 3.

VI. Data collection procedure:

Eligible participants were approached during their admission to the obstetrics and gynecology department and invited to participate in the study. The objectives of the study were explained to each participant, and informed consent was obtained prior to data collection.

Data were collected through face-to-face interviews conducted by the investigator, a medical intern, to ensure adequate understanding of the questions and to minimize missing responses.

Interviews were conducted in dialect arabic for all participants, except for one foreign participant who was interviewed using the english version of the questionnaire.

After completion of the questionnaire, participants were given the opportunity to ask additional questions related to contraception and family planning. When requested, the investigator provided explanations and general information. Participants who asked about the accuracy of their responses were provided with the correct information; however, this clarification was given only after the questionnaire had been fully completed in order to avoid influencing their responses.

VII. Calculation of the knowledge score:

The level of contraceptive knowledge was assessed using the knowledge section of the questionnaire following the scoring system adopted in the original study[6]. Each correct response was assigned a score of 1, while incorrect responses were assigned a score of 0. The total knowledge score was calculated by summing the scores of the individual items[6].

Participants' level of knowledge was categorized based on the scoring system used in the original validated questionnaire, using the median score as a cutoff point. A knowledge score lower than 15 was considered poor knowledge, whereas a score greater than or equal to 15 was considered good knowledge [6].

Additional knowledge questions included in the questionnaire were used for descriptive purposes only and were not included in the calculation of the knowledge score, in order to preserve the original scoring system of the validated instrument.

VIII. Definition of the study variables:

Variables collected through the questionnaire were processed and categorized when necessary in order to facilitate statistical analysis.

1. Derived variables:

A binary variable describing pregnancy history was constructed during data processing.

This variable was derived from the number of pregnancies (gravidity) reported by the participants. Women reporting no previous pregnancies were categorized as never pregnant, whereas those reporting one or more pregnancies were categorized as having a history of pregnancy.

This variable was created in order to facilitate binary comparisons in the analytical study.

2. Operational definitions and literature-based cutoffs:

Some variables were categorized using cutoff values reported in the literature:

- Educational level was categorized into two groups ($\leq$ primary education and $\geq$ middle school education) this categorization was chosen because reproductive health education is introduced in the Moroccan school curriculum at the middle school level, which may influence women's knowledge of contraception [16,17].
- Attitudes toward contraception were assessed using the attitude section of the questionnaire. Each attitude item was coded according to the scoring system of the original validated instrument, and an overall attitude score was calculated by summing the responses. Based on the median score used in the original study[6], attitudes were categorized as negative (<13) or positive (≥ 13).
- Contraceptive practices were assessed by the item 41 of the questionnaire asking participants whether they had ever used any contraceptive method. Responses were recorded as "yes" or "no", following the approach used in the original study[6].
- Age at first childbirth was categorized using a threshold of 20 years. According to the world health organization, pregnancies occurring between 10 and 19 years of age are defined as adolescent pregnancies and are associated with increased maternal and neonatal adverse outcomes.[18] therefore, in the present study, age at first childbirth was categorized as <20 years and ≥ 20 years.
- The number of living children was described both as a continuous variable and as a categorical variable. Participants were categorized into four groups: 0 children, 1 child, 2 children, and ≥ 3 children. Families with three or more children were considered large families, according to definitions used in demographic research [19].

Additionally, grand multiparity, defined in obstetric literature as five or more deliveries reaching viable gestational age[20], was considered as a separate category for descriptive purposes.

- The interpregnancy interval was categorized using a cutoff of 18 months, distinguishing intervals <18 months from those ≥ 18 months, based on international recommendations[21] suggesting a minimum interval of 18 months between pregnancies to reduce adverse maternal and perinatal outcomes.

For multiparous women, the interpregnancy interval considered corresponded to the interval between the two most recent pregnancies.

3. Variables used in the analytical study:

The variables included in the analytical phase of the study are presented in (Table II). These variables were used to explore associations with the level of contraceptive knowledge as well as to assess the potential impact of knowledge on selected reproductive outcomes as a secondary outcome.

Table II : variables included in the analysis

Variable	Role in analysis	Type	Definition / categories
Knowledge level	Dependent variable	Categorical	Poor knowledge (<15) / good knowledge (≥ 15)
Age	Independent variable	Continuous	Age in years
Educational level	Independent variable	Categorical	$\leq$ primary education / $\geq$ middle school education
Place of residence	Independent variable	Categorical	Urban / rural
Occupation	Independent variable	Binary	Employed / not employed
Previous contraceptive use	Independent variable	Binary	Yes / no
Attitude toward contraception	Independent variable	Categorical	Negative (<13) / positive (≥ 13)
Access to basic services	Independent variable	Binary	Yes / no
Health insurance coverage	Independent variable	Binary	Yes / no
Social media use	Independent variable	Binary	Yes / no
Access to healthcare facility nearby	Independent variable	Binary	Yes / no
History of pregnancy	Independent variable	Binary	Yes / no

Age at first childbirth	independent variable	Categorical	<20 years / ≥20 years
History of unwanted pregnancies	independent variable	Binary	Yes / no

IX. Data management and statistical analysis:

Responses collected during the interviews were first entered into a Google forms database, which allowed automatic recording of participants' responses. The dataset was then exported to Microsoft excel, where the data were reviewed, coded, and checked for missing values and inconsistencies prior to analysis. Records with incomplete responses to key variables were excluded from the analytical comparisons.

The cleaned dataset was subsequently imported into the statistical package for the social sciences (SPSS), version 25, for statistical analysis that was done by the Clinical Research Department of Mohammed VI University Hospital of Marrakesh. Tables and figures were prepared using Microsoft excel, and the manuscript was written using Microsoft word.

A descriptive analysis was conducted to summarize the characteristics of the study population. Categorical variables were presented as frequencies and percentages, while continuous variables were described using means and standard deviations.

A bivariate analysis was performed to examine the association between the level of contraceptive knowledge and the explanatory variables. Associations with categorical variables were assessed using the chi-square test or fisher's exact test when appropriate. And the student's t-test was used to compare the mean age between participants with good and poor knowledge.

A **p-value < 0.05** was considered statistically significant.

X. Ethical considerations:

Authorization to conduct the study was obtained from the head of the obstetrics and gynecology department of the Mohammed VI university hospital in Marrakesh.

Participation in the study was voluntary. The objectives of the study were explained to all participants, and informed consent was obtained prior to data collection. Participants were assured that their responses would remain confidential and that the information collected would be used only for research purposes. The data were analysed anonymously. Participants were also informed that they were free to decline participation or withdraw from the study at any time without any consequences.



RESULTS



A total of 324 responses were collected. Following refinement of the inclusion criteria to restrict the analysis to women of reproductive age, five participants aged over 49 years were excluded, yielding a final sample of 319 women who fulfilled the eligibility criteria, provided informed consent, and were included in the study

I. Descriptive study:

1. Sociodemographic characteristics :

1.1 Age:

The age of the participants ranged from 18 to 47 years. The mean age of the study population was 28.3 ± 6.5 years, while the median age was 27 years. (figure 1)

The most frequently represented age was 26 years accounting for 8.8%(n=28). The 75th percentile was 32 years, indicating that 75% of the participants were aged 32 years or younger.

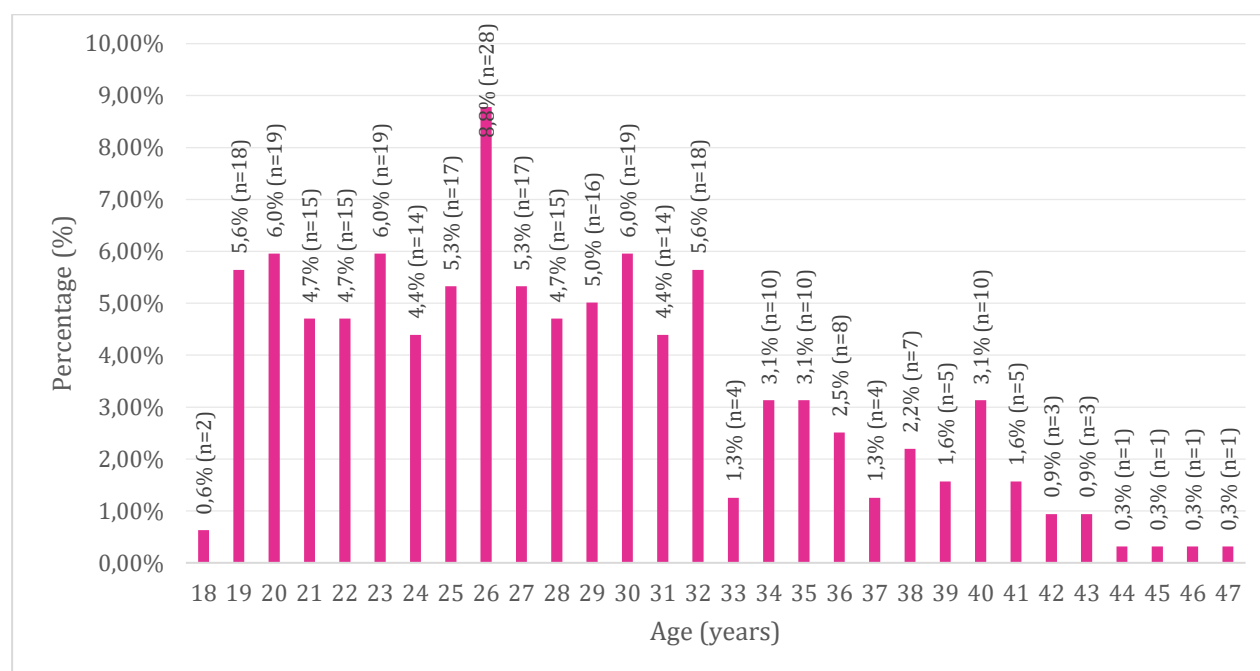


Figure 1: Distribution of participants by age (years)

1.2 Nationality:

Regarding nationality, 318 participants (99.7%) were moroccan, whereas 1 participant (0.3%) was senegalese. (figure 2)

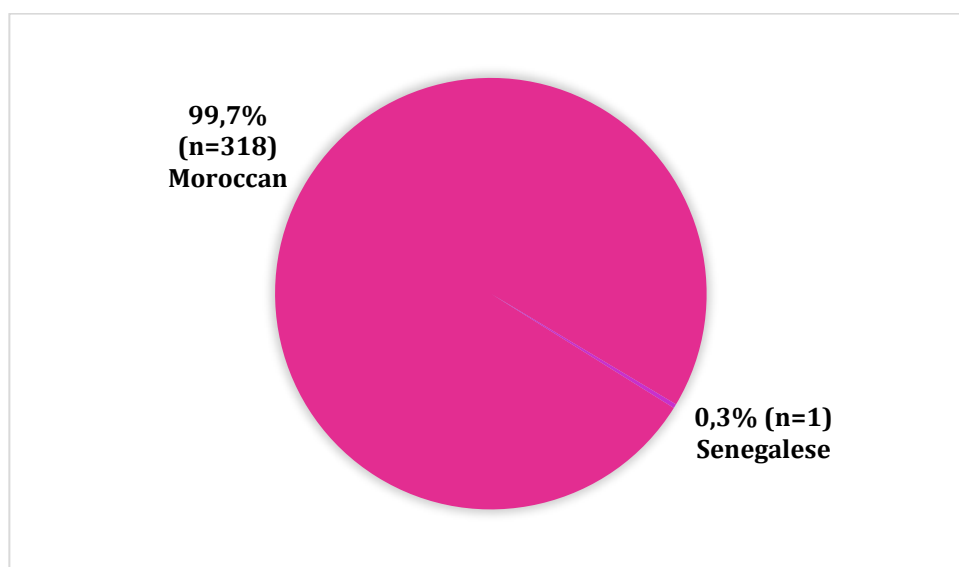


Figure 2: Distribution of participants according to nationality

1.3 Area of residence :

Participants residing in rural areas represented 74.6% (n = 238) of the sample, whereas 25.4% (n = 81) lived in urban areas. (figure 3)

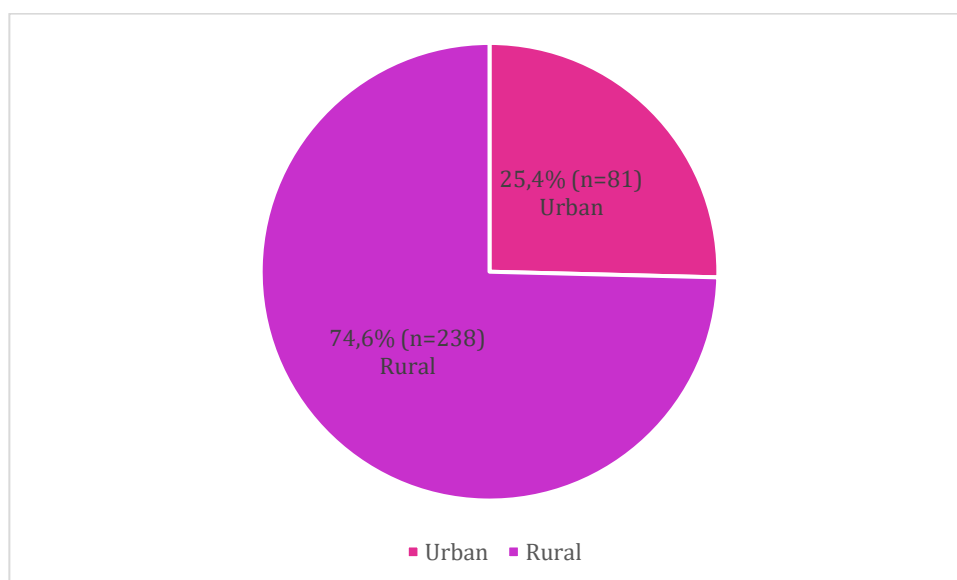


Figure 3: Distribution of participants according to the area of residence

1.4 Educational level :

The educational level of the participants varied across several categories. Primary school education was the most represented level, accounting for 47.3% (n = 151) of the sample. Followed by middle school education with 21.6% (n = 69). Participants who were illiterate represented 12.9% (n = 41) of the study population, while 8.5% (n = 27) had completed high school and 7.2% (n = 23) had university-level education. Only 2.5% (n = 8) of the participants reported being able to read and write without having attended formal schooling. (figure 4)

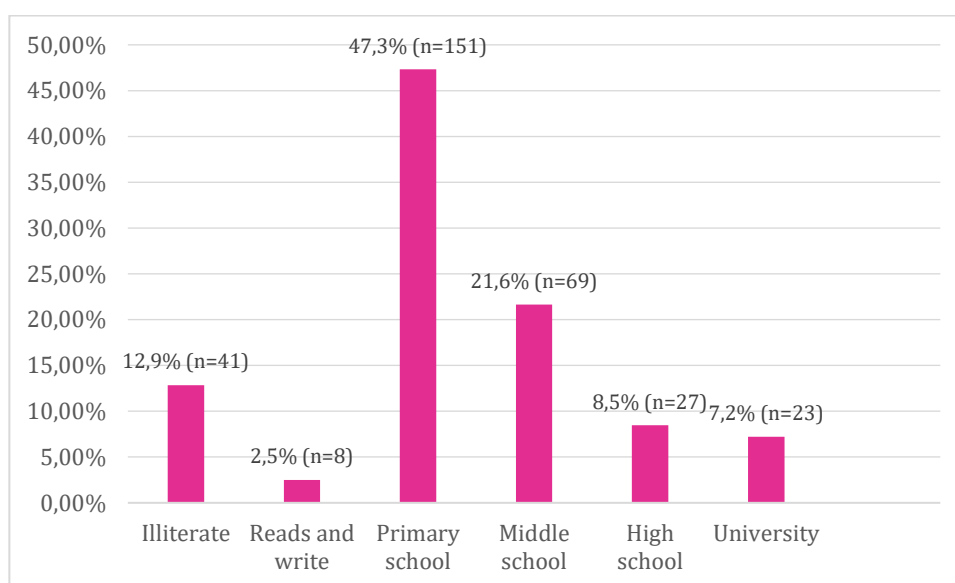


Figure 4: Distribution of participants according to educational level

When educational level was grouped into primary education or less and middle school education or higher, 62.69% (n = 200) of participants had an educational level of primary education or less, whereas 37.3% (n = 119) had middle school education or higher.

1.5 Monthly income:

More than half of the participants reported a monthly income of less than 3000 MAD, representing 54.2% (n = 173) of the sample. Participants with a monthly income between 3000 and 10,000 MAD accounted for 43.6% (n = 139), whereas only 2.2% (n = 7) reported an income exceeding 10,000 MAD. (figure 5)

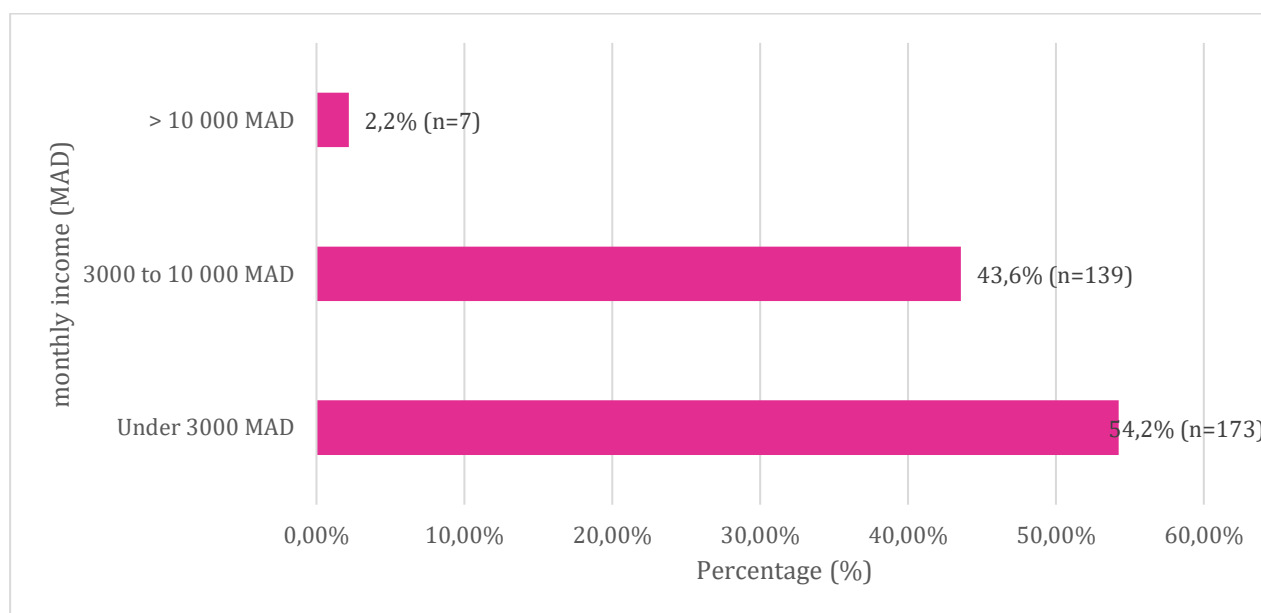


Figure 5: Distribution of participants according to monthly income (MAD).

1.6 Employment status :

Regarding employment status, 93.1% (n = 297) of the participants reported not having a job, whereas 6.9% (n = 22) were employed. (figure 6)

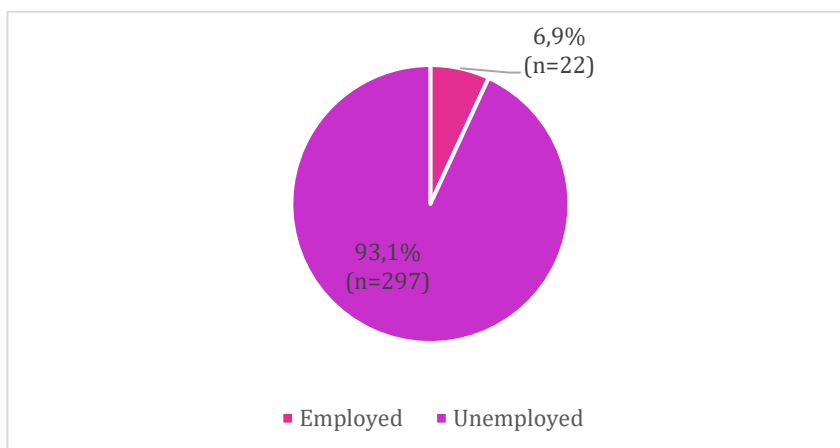


Figure 6: Distribution of participants according to employment status.

1.7 Access to basic services (electricity, water, internet)

Most participants reported having access to basic services. 98.7% (n = 315) of the participants had access to electricity, water, and internet, while only 1.3% (n = 4) reported not having access to these services. (figure 7)

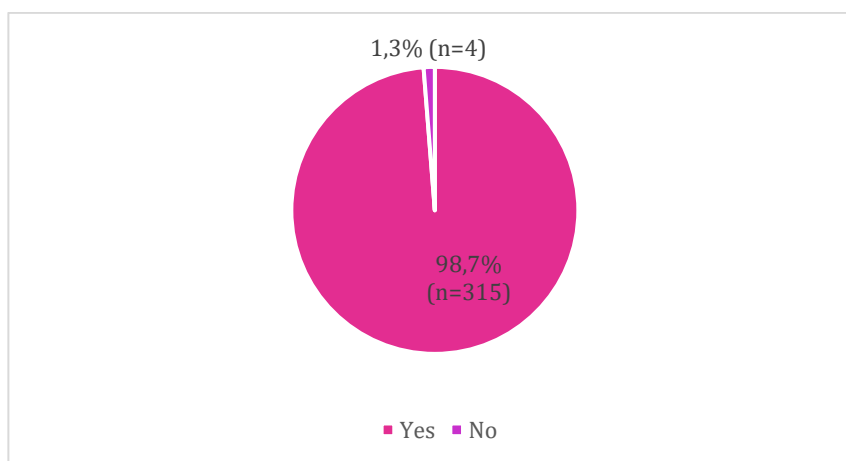


Figure 7: Distribution of participants according to access to basic services (electricity, water, and internet).

1.8 Health insurance coverage:

The distribution shows that 66.5% (n = 212) of participants reported having health insurance coverage, whereas 33.5% (n = 107) did not have any health insurance coverage. (figure 8)

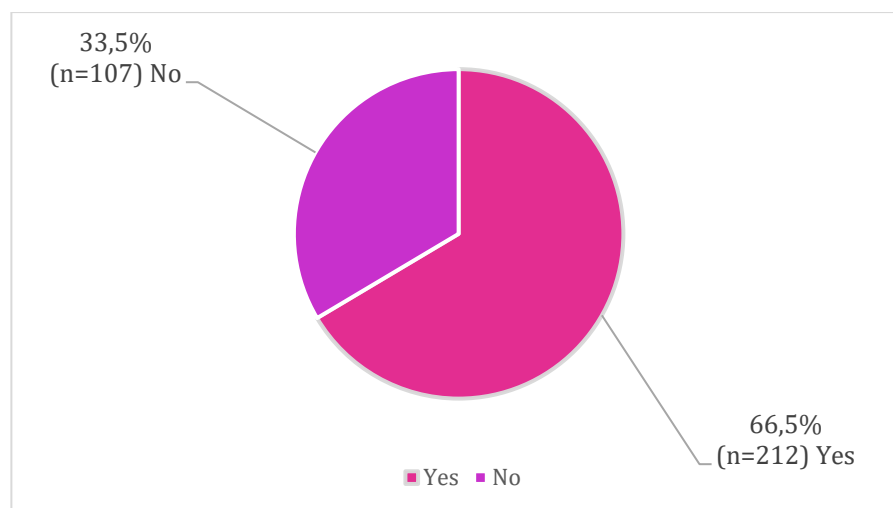


Figure 8: Distribution of participants according to health insurance coverage.

1.9 Social media usage:

The distribution shows that 79.9% (n = 255) of participants reported using social media, whereas 20.1% (n = 64) reported not using social media. (figure 9)

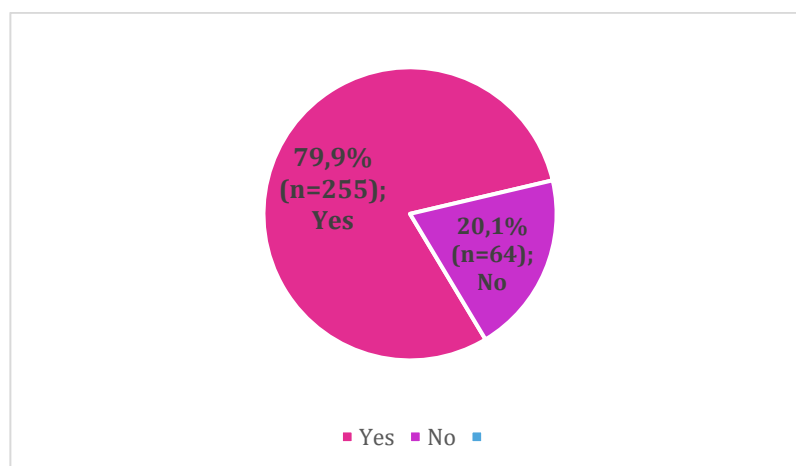


Figure 9: Distribution of participants according to social media usage.

1.10 Access to healthcare facility nearby:

The distribution shows that 82.8% (n = 264) of participants reported having access to a nearby healthcare facility, whereas 17.2% (n = 55) reported not having access to a nearby healthcare facility. (figure 10)

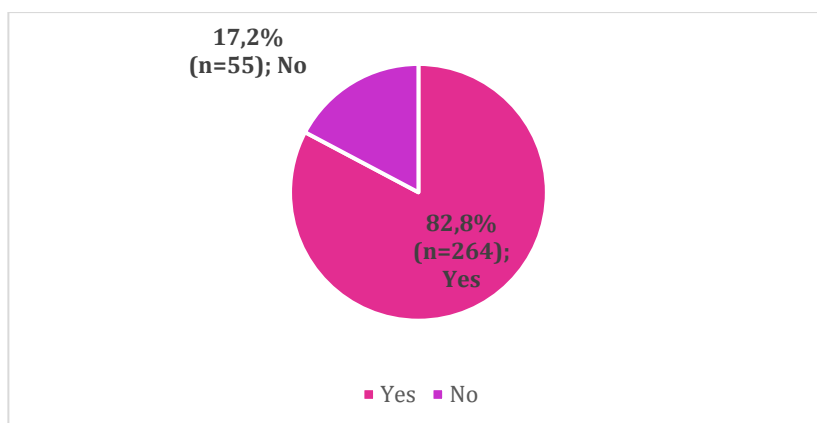


Figure 10: Distribution of participants according to access to a nearby healthcare facility.

1.11 Marital status :

The majority of participants were married, representing 95.6% (n = 305) of the study population. A small proportion of participants were divorced, accounting for 2.5% (n = 8), while 1.6% (n = 5) were single. Only 0.3% (n = 1) of the participants reported being widowed. (figure 11)

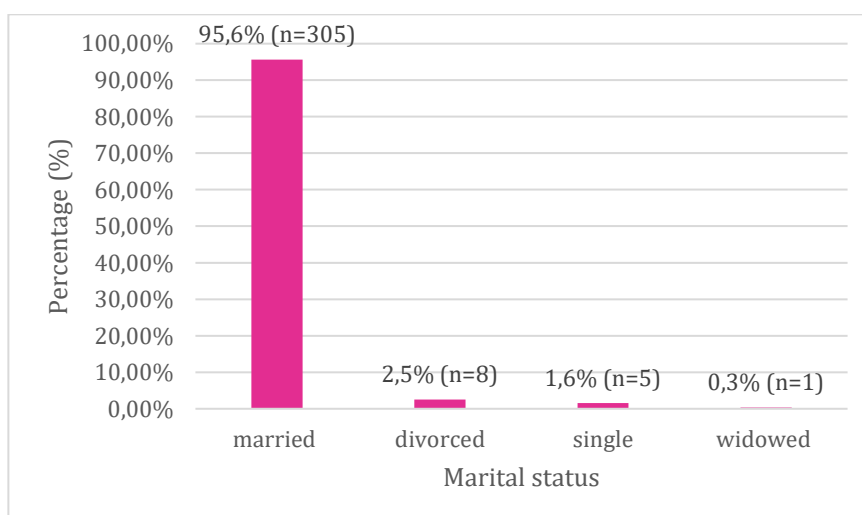


Figure 11: Distribution of participants according to marital status.

1.12 Duration of marriage :

Duration of marriage was available for 314 participants who reported being already married.

The distribution of participants according to duration of marriage is presented in (Figure 12).

Overall, 32,59% (n = 102) of participants had been married for two years or less, 15,97% (n = 50) for more than two to five years, 27,16% (n = 85) for more than five to ten years, and 24,60% (n = 77) for more than ten years.

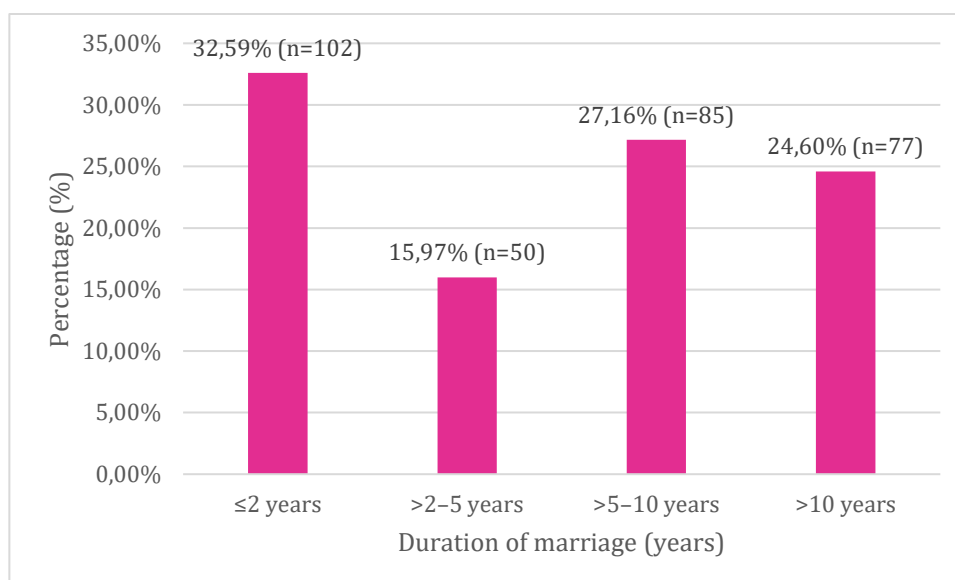


Figure 12: Distribution of participants according to duration of marriage (n = 314)

1.13 Pregnancy history:

The distribution shows that 99.4% (n = 317) of participants reported a history of at least one pregnancy, whereas 0.6% (n = 2) had never been pregnant. (Figure 13)

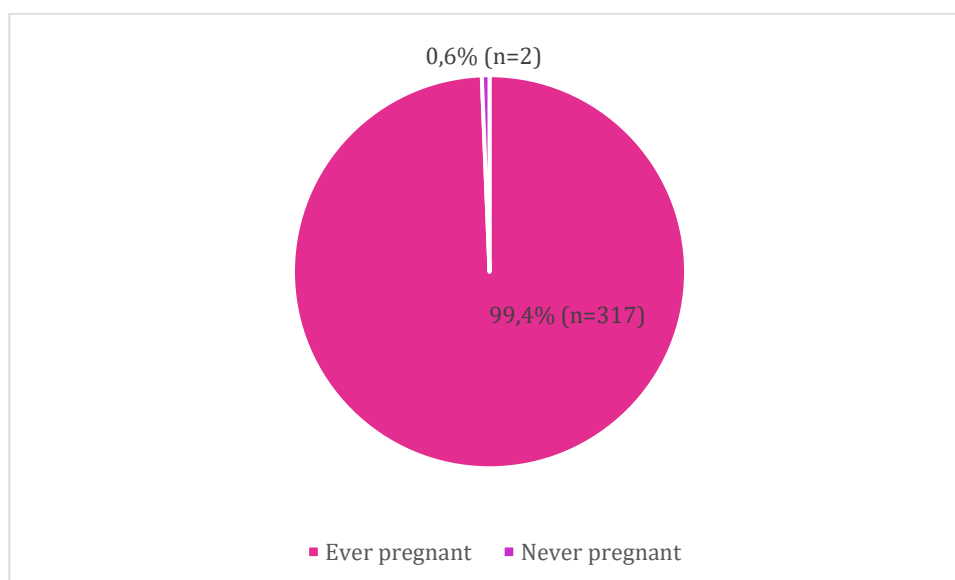


Figure 13: Distribution of participants according to pregnancy history

1.14 Gravidity:

The distribution of the number of pregnancies is presented among women with a history of pregnancy (n = 317).

The most frequent number of pregnancies was one pregnancy, reported by 30.9% (n = 98) of participants. This was followed by two pregnancies in 21.1% (n = 67) of women and three pregnancies in 19.6% (n = 62). (figure 14)

Women reporting four pregnancies accounted for 16.7% (n = 53) of the study population, while 6.9% (n = 22) reported five pregnancies. Higher gravidity values were less common, with 3.5% (n = 11) reporting six pregnancies and 0.9% (n = 3) reporting seven pregnancies. Only 0.3% (n = 1) of participants reported eight pregnancies.

The mean gravidity was 2.63 ± 1.52 pregnancies, with a median of 2 and a range of 1 to 8 pregnancies. The 75th percentile was 4 pregnancies, indicating that three-quarters of women had four pregnancies or fewer.

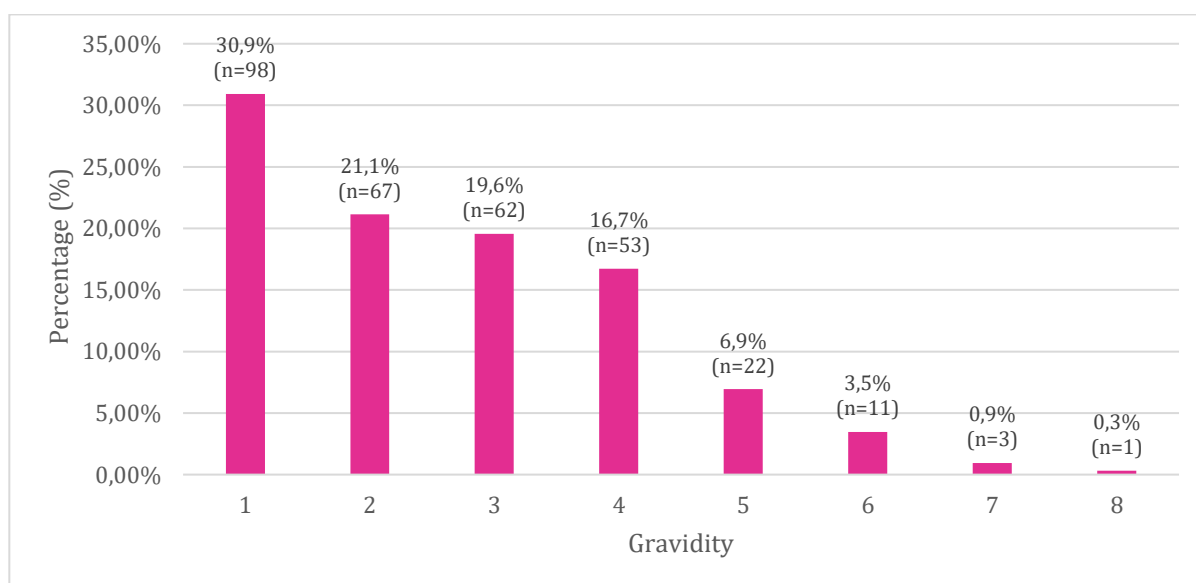


Figure 14: Distribution of participants according to the number of pregnancies/gravidity (n=317).

1.15 Number of living children:

The number of living children among the participants ranged from 0 to 6 children, with frequencies presented in (figure 15).

The distribution shows that 3.76% (n = 12) of participants had no living children, 34.80% (n = 111) had one child, 24.45% (n = 78) had two children, 20.38% (n = 65) had three children, 10.03% (n = 32) had four children, 5.02% (n = 16) had five children and 1.57% (n = 5) had six children.

Overall, 36.99% (n = 118) of participants had three or more living children. Additionally, 6.58% (n = 21) had five or more living children.

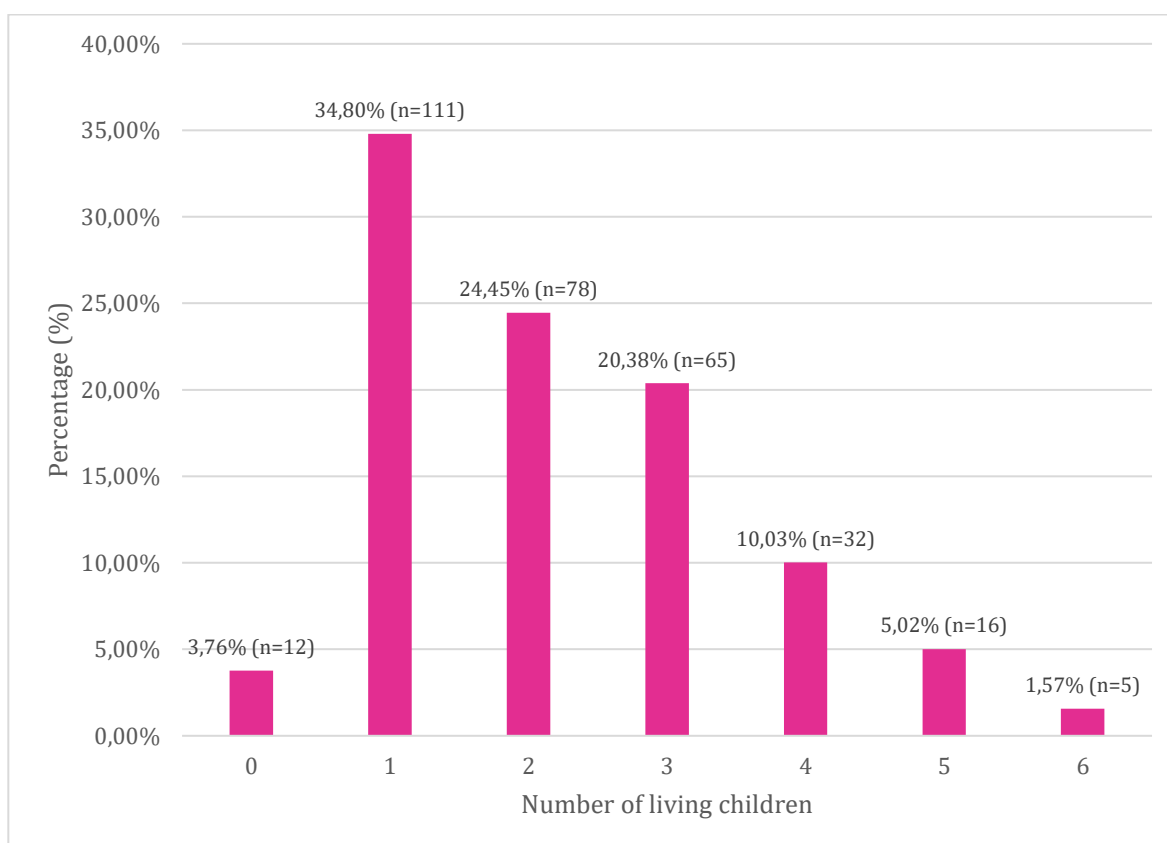


Figure 15: Distribution of participants according to the number of living children

The distribution of the number of living children according to duration of marriage is presented in (figure 16).

Participants married for two years or less most frequently reported having one living child.

As the duration of marriage increased, higher numbers of living children were progressively more frequent. Among women married for more than five years, the majority reported having two or more living children, while among those married for more than ten years, three or more living children were the most frequently reported.

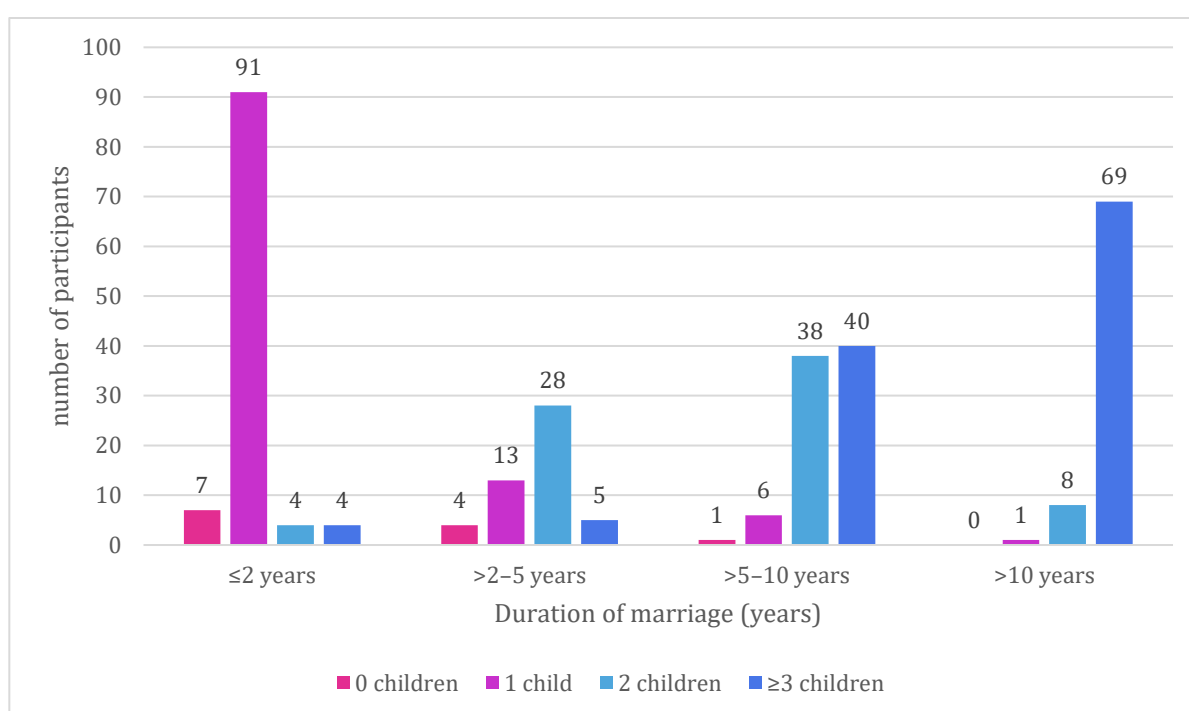


Figure 16: Distribution of number of living children according to duration of marriage.

1.16 Age at first childbirth:

Among the 319 women included in the study, 308 participants had experienced at least one childbirth. The age at first childbirth ranged from 11 to 43 years, with a mean of 21.95 ± 5.06 years and a median of 20 years as represented in (figure 17).

The most frequently reported age at first childbirth was 19 years, representing 20.5% (n = 63) of the participants. Other reported ages included 20 years (14.0%, n = 43) and 21 years (10.1%, n = 31), with progressively lower frequencies observed at higher ages.

Regarding the distribution according to the 19-years old threshold, 37.33% (n = 115) of women had their first childbirth at 19 years or younger, whereas 62.66% (n = 193) had their first childbirth at 20 years or older.

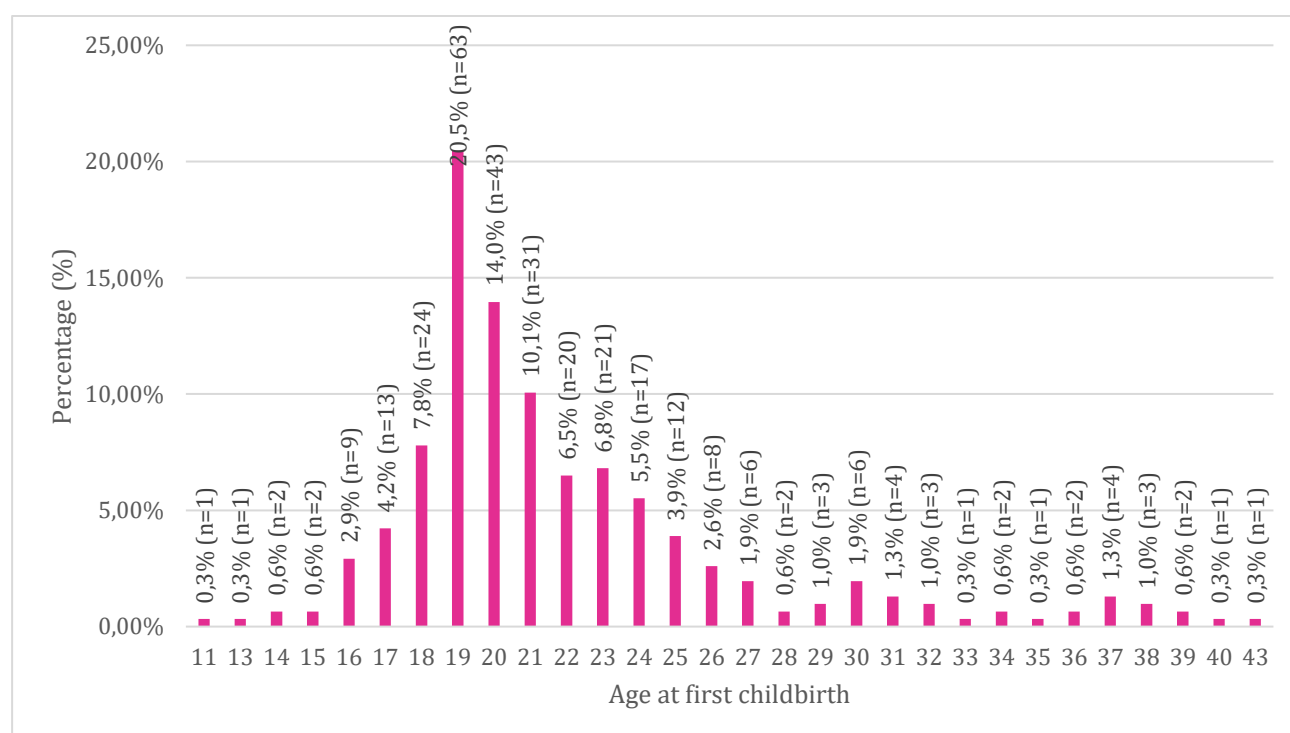


Figure 17: Distribution of participants according to age at first childbirth (n=308)

1.17 Unwanted pregnancies:

The distribution of participants according to history of unwanted pregnancy is presented in (Figure 18).

Overall, 69.91% (n = 223) of participants reported no history of unwanted pregnancy, whereas 30% (n = 96) reported having experienced at least one unwanted pregnancy.

Among participants reporting at least one unwanted pregnancy, the majority reported one unwanted pregnancy, representing 22.25% (n = 71) of the total sample. Smaller proportions reported two unwanted pregnancies (4.70%, n = 15), three unwanted pregnancies (2.19%, n = 7), four unwanted pregnancies (0.62%, n = 2), and six unwanted pregnancies (0.31%, n = 1).

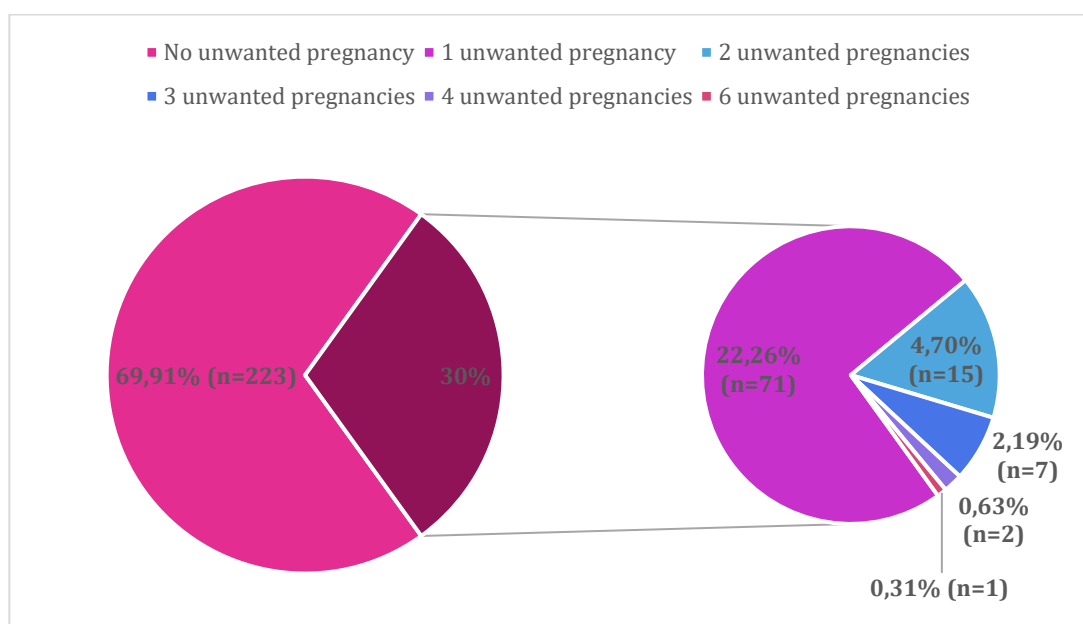


Figure 18: Distribution of participants according to history and number of unwanted pregnancies

1.18 Interpregnancy interval:

The interpregnancy interval was calculated only among participants with a history of at least two pregnancies.

The distribution of participants according to interpregnancy interval is presented in (Figure 19).

Overall, 69.11% (n = 132) of participants reported an interpregnancy interval of 18 months or more, whereas 30.89% (n = 59) reported an interval of less than 18 months.

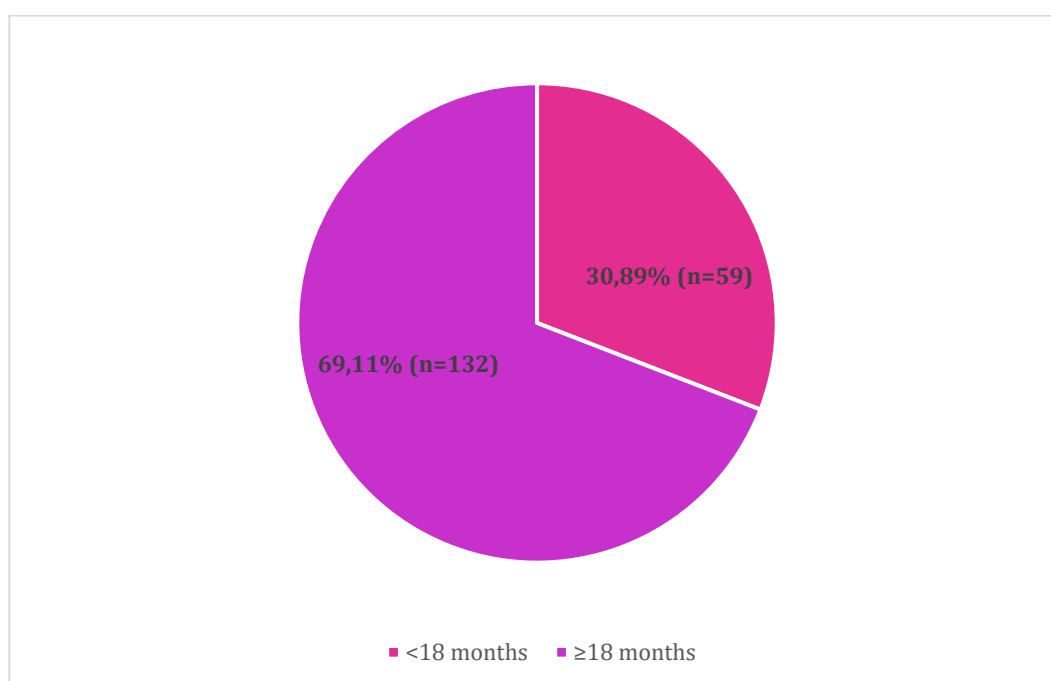


Figure 19: Distribution of participants according to interpregnancy interval (n = 191)

2. Knowledge of contraception:

2.1. Awareness of the concept of family planning::

Almost all participants were aware of the purpose of contraceptive methods, with 99.69% (n = 318) answering "yes," while only 1 participant (0.31%) reported not knowing their purpose. (Figure 20)

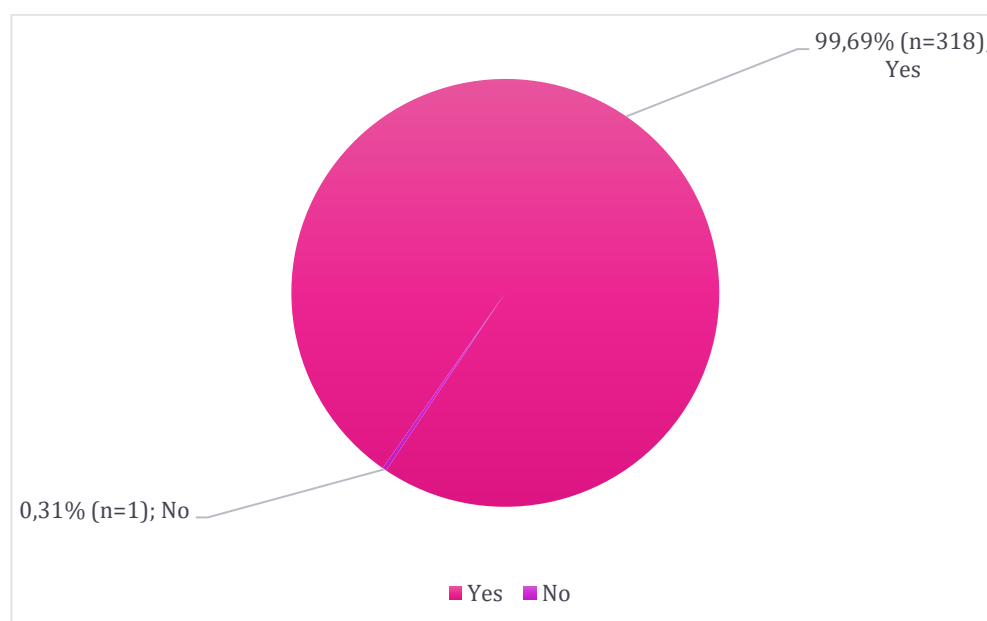


Figure 20: Distribution of participants according to knowledge of the purpose of contraceptive methods

2.2. Knowledge of different contraceptive methods:

Awareness of the different contraceptive methods varied among participants as represented in (Figure 21).

The most widely recognized method was oral contraceptive pills, known by 98.7% of women (n = 315).

This was followed by the contraceptive injection, reported by 75.9% of participants (n = 242), then the male condom (74.0%, n = 236), the intrauterine device IUD (70.8%, n = 226), and tubal ligation (68.0%, n = 217).

Moderate levels of awareness were observed for withdrawal (56.7%, n = 181), ovulation tracking (47.6%, n = 152), Lactational amenorrhea method (LAM) (44.5%, n = 142), and the contraceptive implant (41.4%, n = 132).

In contrast, knowledge of other methods remained limited, particularly for vasectomy (6.6%, n = 21) and female condoms (3.4%, n = 11), while awareness of contraceptive patches (1.3%, n = 4), body temperature methods (1.3%, n = 4), spermicides (0.6%, n = 2), cervical mucus monitoring (0.6%, n = 2), and the vaginal ring (0.3%, n = 1) was very low.

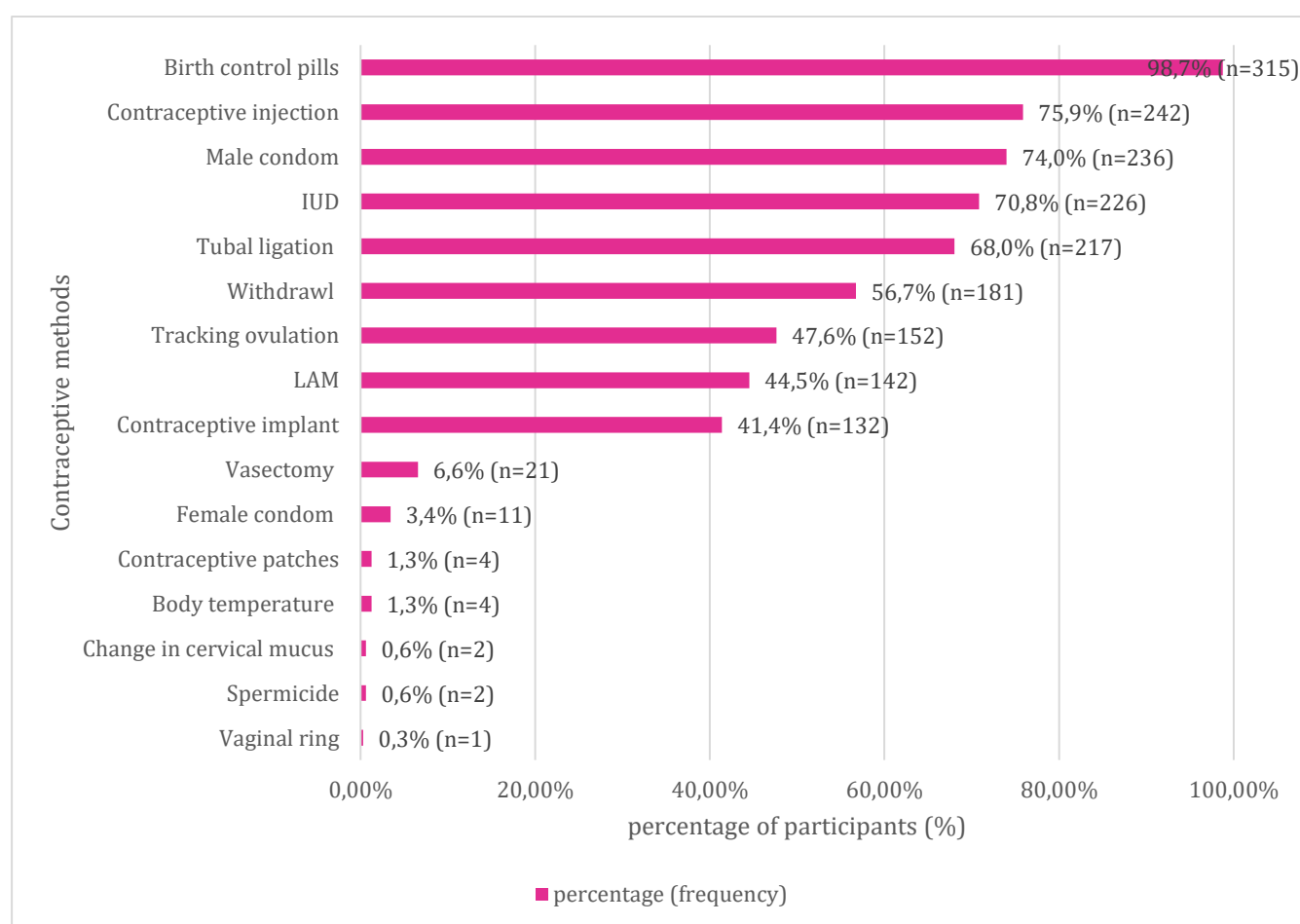


Figure 21: Proportion of participants aware of each contraceptive method

2.3. knowledge of the most effective method in preventing pregnancy:

More than half of the participants reported not knowing which contraceptive method was the most effective 58.3%, n = 186).

Among those who selected a method, oral contraceptive pills were the most frequently chosen option (27.9%, n = 89) as represented in (figure 22)

The intrauterine device (IUD), which represents the correct answer, was selected by 6.3% of participants (n = 20).

Other responses included contraceptive injections (3.4%, n = 11), contraceptive implants (1.6%, n = 5), male or female condoms (1.3%, n = 4), withdrawal (0.6%, n = 2), ovulation tracking (0.3%, n = 1). 1 participant reported that no contraceptive method was effective.

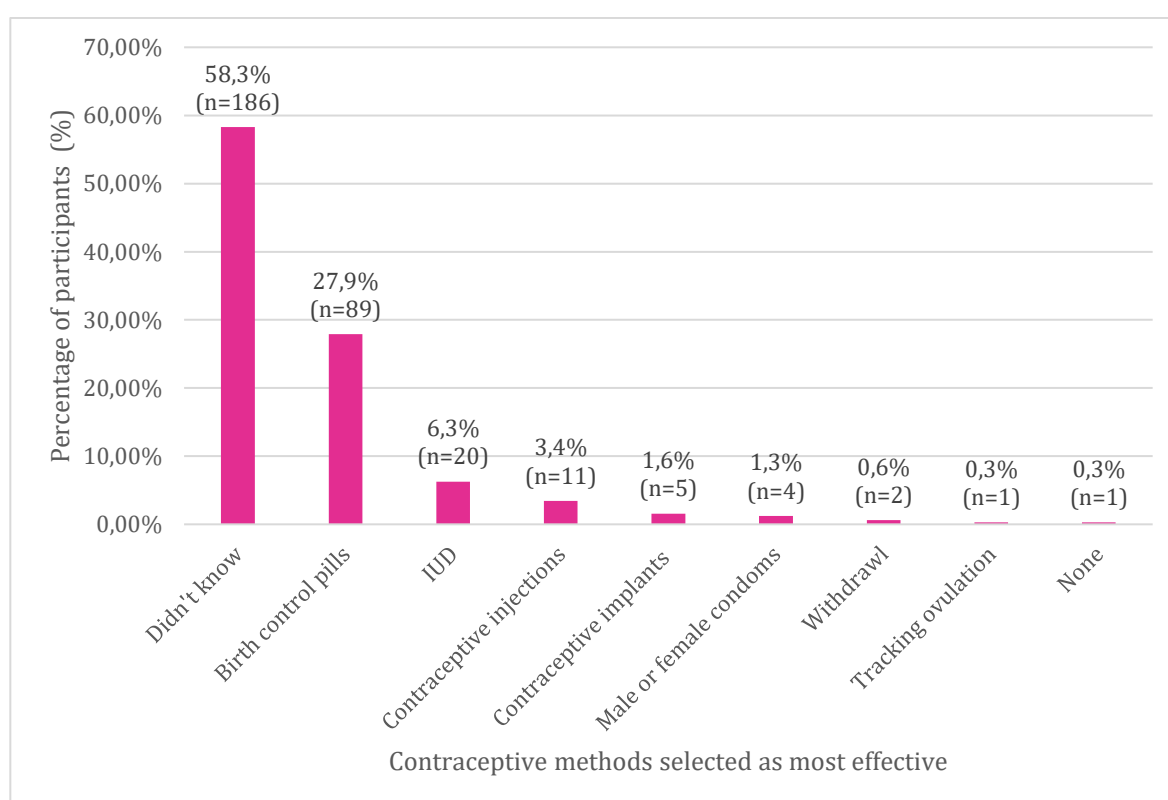


Figure 22: Percentage distribution of selected contraceptive methods considered most effective

2.4. Knowledge of the contraceptive methods that protect against sexually transmitted infections

⋮

Only 14.4% of participants (n = 46) correctly identified condoms as the contraceptive method that provides protection against sexually transmitted infections (STIs)

In contrast, 85.6% (n = 273) did not know that condoms offer protection against sexually transmitted infections (STIs) as shown in (Figure 23).

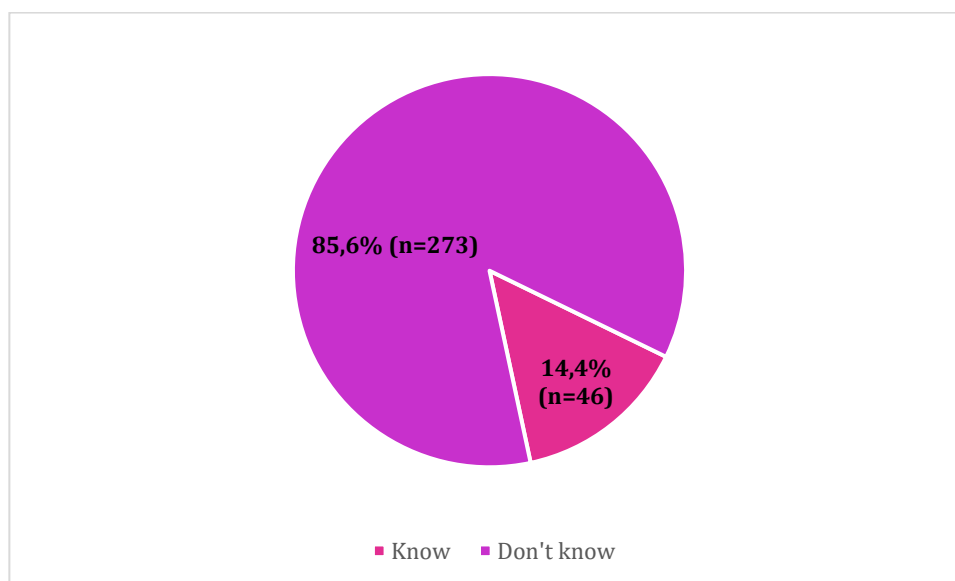


Figure 23: Proportion of participants aware that condoms protect against sexually transmitted infections

2.5. knowledge of permanent contraceptive methods :

Awareness of permanent contraceptive methods is represented in (Figure 24).

Tubal ligation was recognized as a permanent contraceptive method by 53.3% (n = 170) of the women in our study, indicating that nearly half of the participants were unaware of this contraceptive method as permanent.

Knowledge of vasectomy was considerably lower, with only 5.0% of participants (n = 16) knowing about it as a permanent contraceptive method.

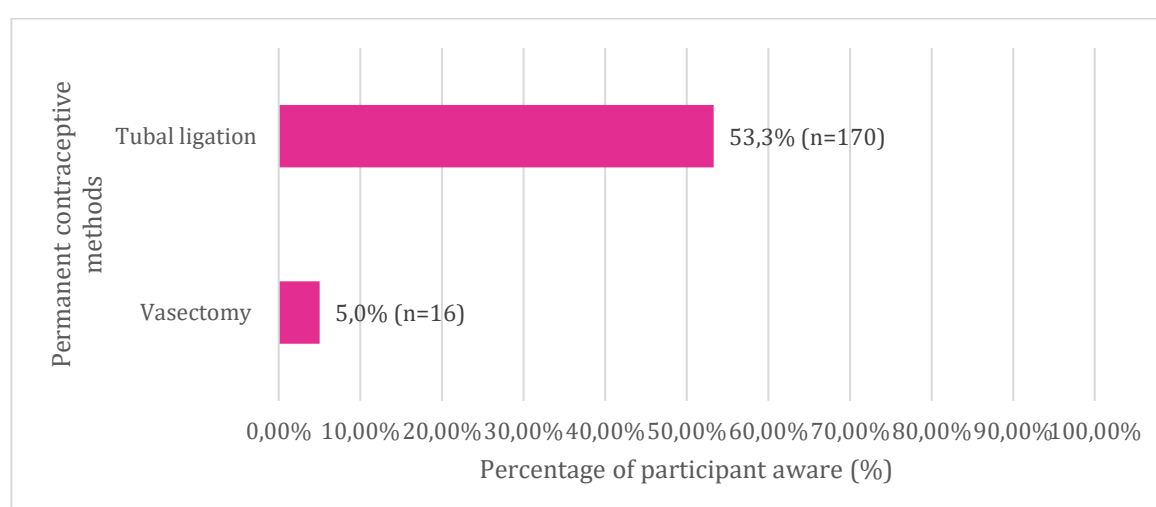


Figure 24: Proportion of participants aware of permanent contraceptive methods

2.6. Knowledge of the side effects of contraceptive methods :

Participants were asked to select the side effects they believed could occur with the use of contraceptive methods. Their answers are represented in (Figure25).

Several medically recognized side effects were frequently identified by participants, particularly weight gain (73.7%, n = 235) and mood swings (68.3%, n = 218). Other recognized effects included acne (42.6%, n = 136), metrorrhagia (33.5%, n = 107), menorrhagia (32.6%, n = 104), decreased libido (30.4%, n = 97), dysmenorrhea (12.5%, n = 40) and vaginal infection or urinary tract infection (11.0%, n = 35).

However, participants also selected several outcomes that do not correspond to established side effects of contraceptive methods. These included delayed recovery of fertility or infertility (24.7%, n = 80), abortion (21.6%, n = 70), ectopic pregnancy (6.8%, n = 22), and unwanted pregnancies (6.2%, n = 20).

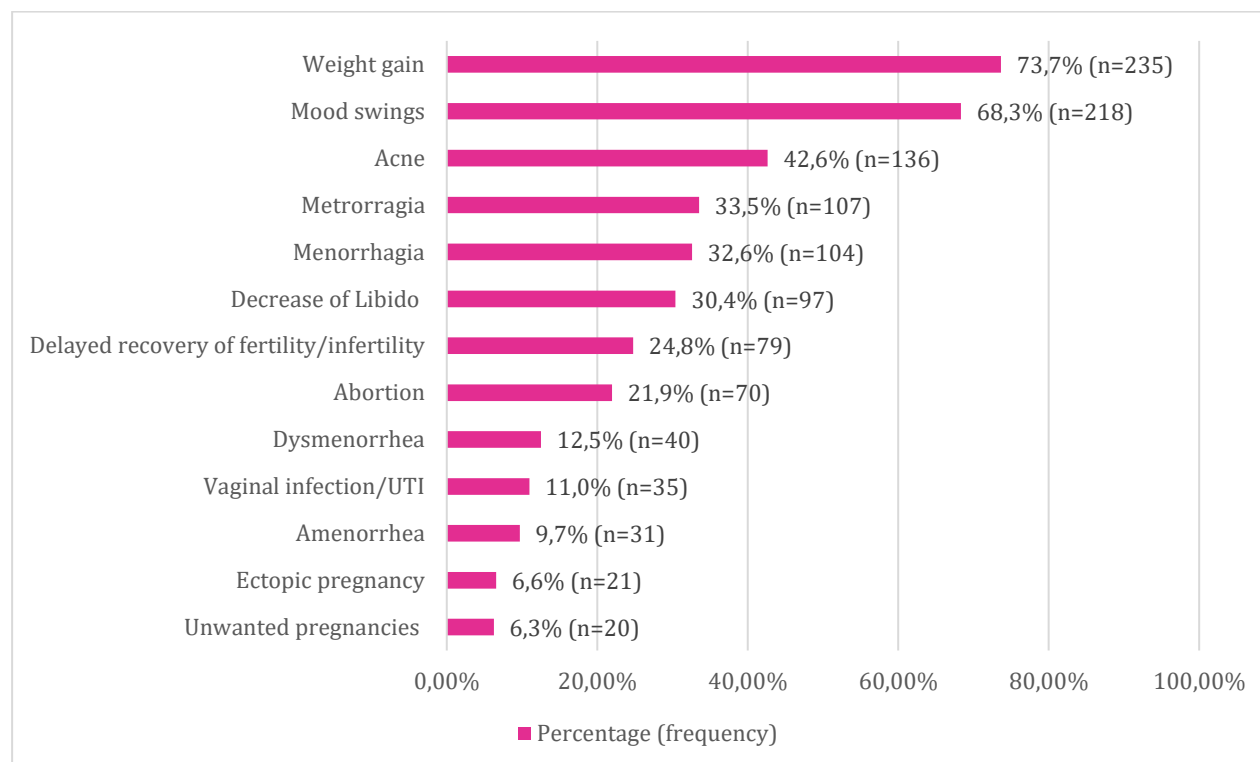


Figure 25: Percentage of participants selecting each proposed side effect of contraceptive methods

2.7. Knowledge of emergency contraception:

When asked about their knowledge of emergency contraception, 80.9% of participants (n = 257) reported that they were not aware of emergency contraception, while 19.4% (n = 62) indicated that they knew about it. (figure 26)

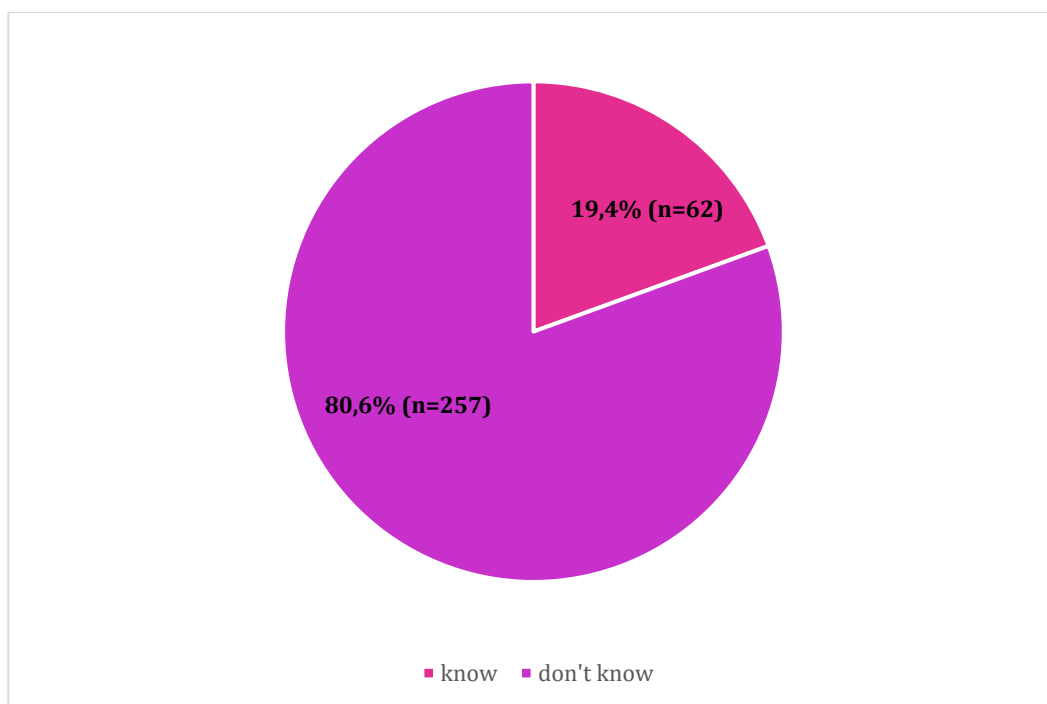


Figure 26: Proportion of participants aware of emergency contraception

2.8. Sources of knowledge about family planning methods:

Participants were asked to indicate their sources of knowledge regarding family planning methods, as shown in (Figure 27), the most frequently reported source was family and friends, cited by 95.0% of participants (n = 303). This was followed by the internet and social media platforms, reported by 73.7% (n = 235) of participants.

Less commonly cited sources included television, reported by 11.3% of participants (n = 36), and healthcare providers, reported by 8.5% (n = 27) of the study population.

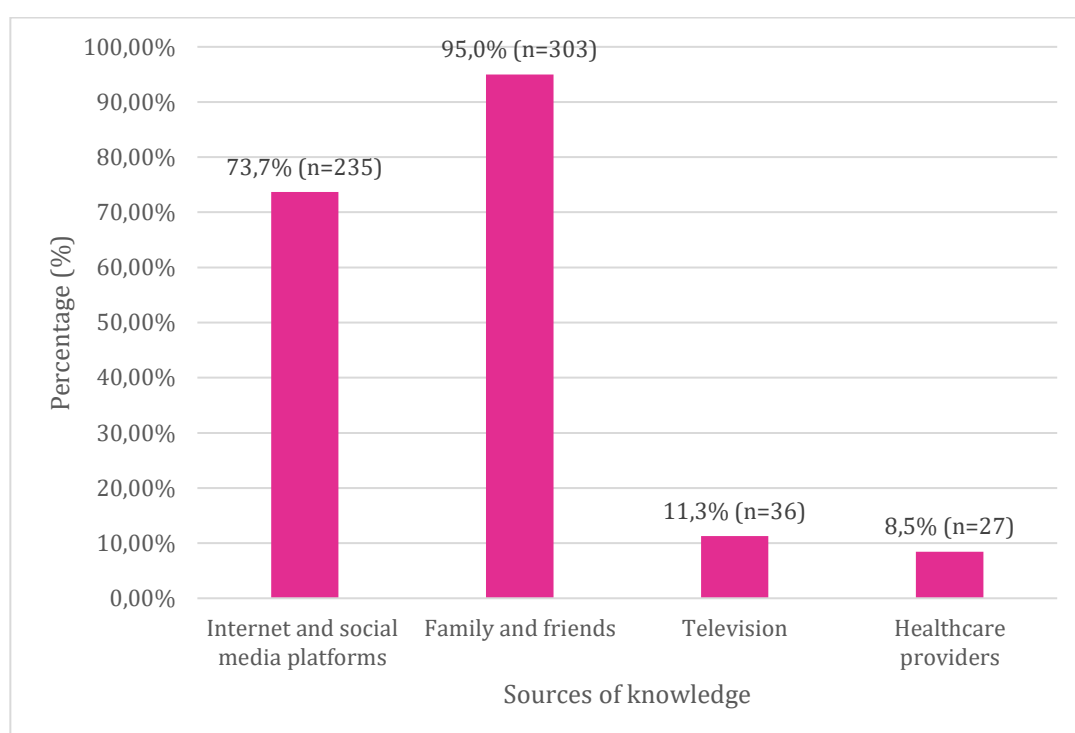


Figure 27: Distribution of the participants' sources of knowledge regarding contraceptive methods

2.9. Level of knowledge :

Participants were categorized according to their level of knowledge of contraceptive methods.

As shown in (Figure 28), 21,0% (n=67) of participants demonstrated good knowledge, while 79,0% (n=252) were classified as having poor knowledge.

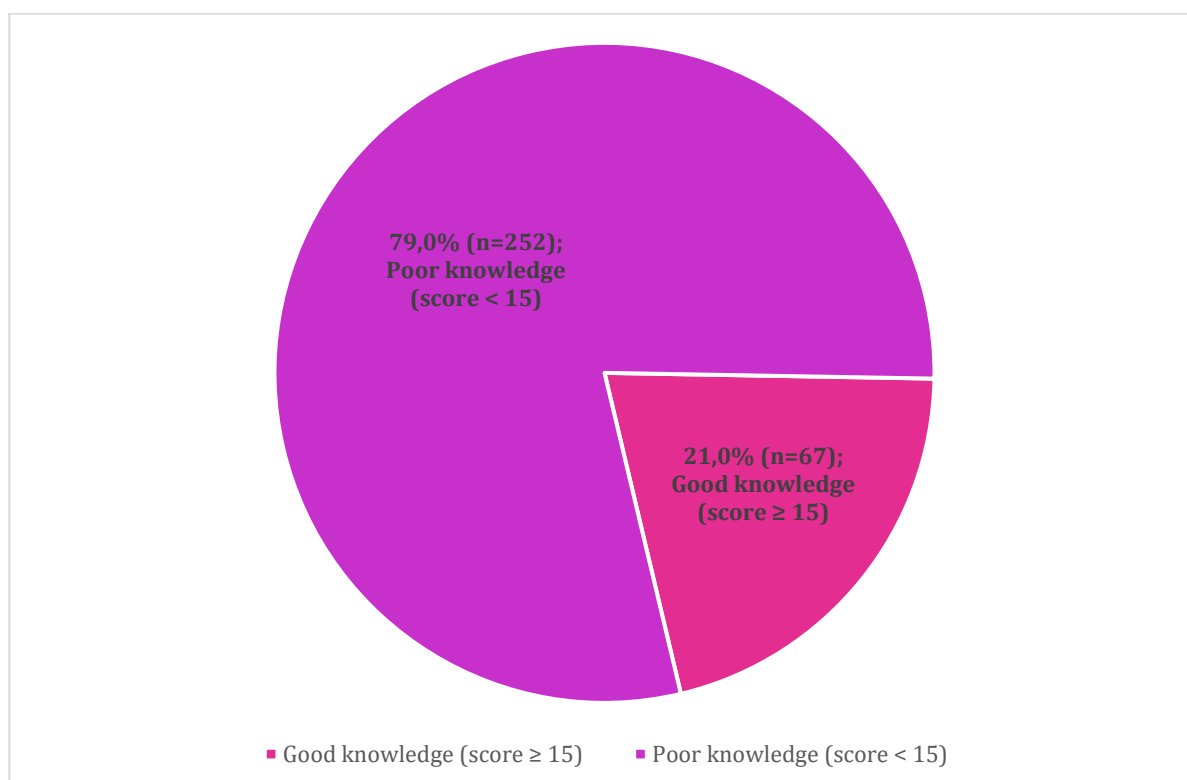


Figure 28: Distribution of participants according to contraceptive knowledge level based on the knowledge score

3. Attitudes towards contraceptive methods :

3.1. Participants' responses to the attitude statements:

The participants' responses to the attitude-related statements regarding family planning are presented in (table III).

Table III : Participants' responses to statements assessing attitudes toward family planning (n = 319)

<i>Statement</i>	<i>Response</i>	<i>N</i>	<i>%</i>
Family planning can impact on the family level	Good	309	96.9%
	Bad	10	3.1%
Family planning can impact on the society	Good	298	93.4%
	Bad	7	2.2%
	No effect	14	4.3%
The husband should know about his wife's usage of contraceptives	No	9	2.8%
	Yes	310	97.2%
Husbands' beliefs regarding birth spacing (n=314)	Disagree	18	5.7%
	Do not mind	140	44.6%
	Encourage	156	49.7%
Females' beliefs about contraceptives	Planned to use contraceptives in the future	292	91.5%
	Contraception is useful	300	94.0%
	Contraception reduces sexual activity	5	1.6%
	Contraceptives are better than abortion	289	90.6%
	Condoms can slip off during intercourse	53	16.6%
Spouse discussion about family planning is important	Disagree	15	4.7%
	Agree	304	95.3%
Having an interest in knowing family planning	Disagree	7	2.2%
	Agree	312	97.8%
Family planning is important for females' health	Disagree	19	6.0%
	Agree	300	94.0%

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Statement	Response	N	%
Family planning is important for family stability	Disagree	15	4.7%
	Agree	304	95.3%
The large family size affects the development of the family	Disagree	22	6.9%
	Agree	297	93.1%
Having an interest in using family planning	Disagree	24	7.5%
	Agree	295	92.5%
Helping in counselling of other females for family planning	Disagree	19	5.9%
	Agree	300	94.0%
Having many children is a family asset	Disagree	281	88.1%
	Agree	38	11.9%
A family with many sons is more respectable than a family with many females	Disagree	290	90.9%
	Agree	29	9.1%
Usage of family planning is wrong	Disagree	307	96.2%
	Agree	12	3.8%

A total of 96.9% (n = 309) of the women in this study believed that family planning can impact the family in a good way and 93.4% (n = 298) believed it can have a good impact on society. And 97.2% (n = 310) agreed that husbands should be aware of their wives' contraceptive use.

Most women considered contraception useful (94.0%, n = 300) and 91.5% (n = 292) reported planning to use contraceptives in the future. In addition, 95.3% (n = 304) agreed that discussing family planning with a spouse is important and 97.8% (n = 312) expressed interest in learning more about family planning. Family planning was considered important for women's health by 94.0% (n = 300) and for family stability by 95.3% (n = 304).

Finally, 88.1% (n = 281) disagreed that having many children is a family asset, 90.9% (n = 290) disagreed that families with many sons are more respectable, and 96.2% (n = 307) disagreed that the use of family planning is wrong.

3.2. Overall attitude score toward family planning:

The distribution of the participants according to the attitude score is represented in (figure 29). Most participants demonstrated a positive attitude toward contraception, representing 92.2% (n = 294) of the study population, while 7.8% (n = 25) showed a negative attitude.

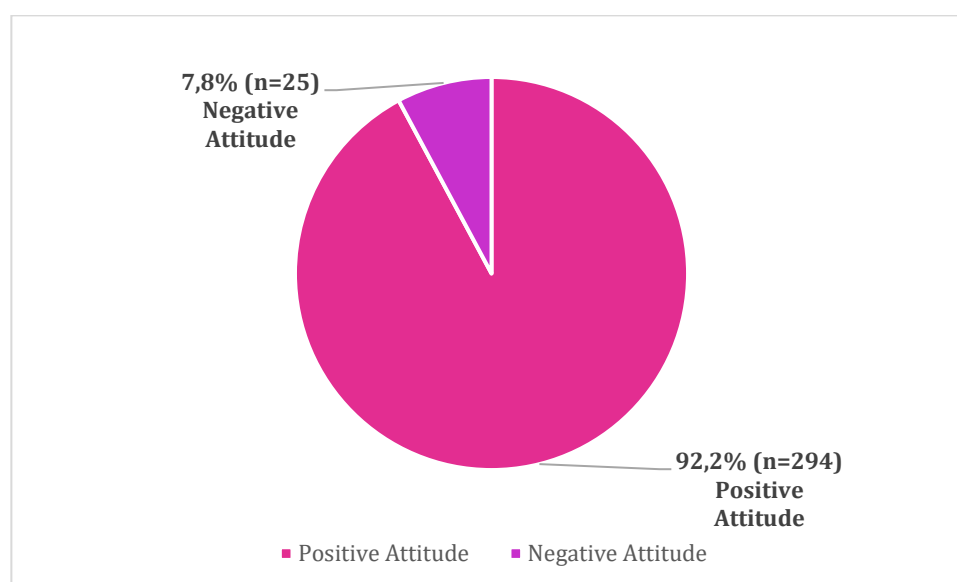


Figure 29: Distribution of participants according to the attitude score

4. Practices of contraception :

4.1. Use of contraceptive methods:

Among the participants, 72.1% (n=230) reported having used a contraceptive method before, while 27.9% (n=89) reported that they had never used any contraceptive method. (figure 30)

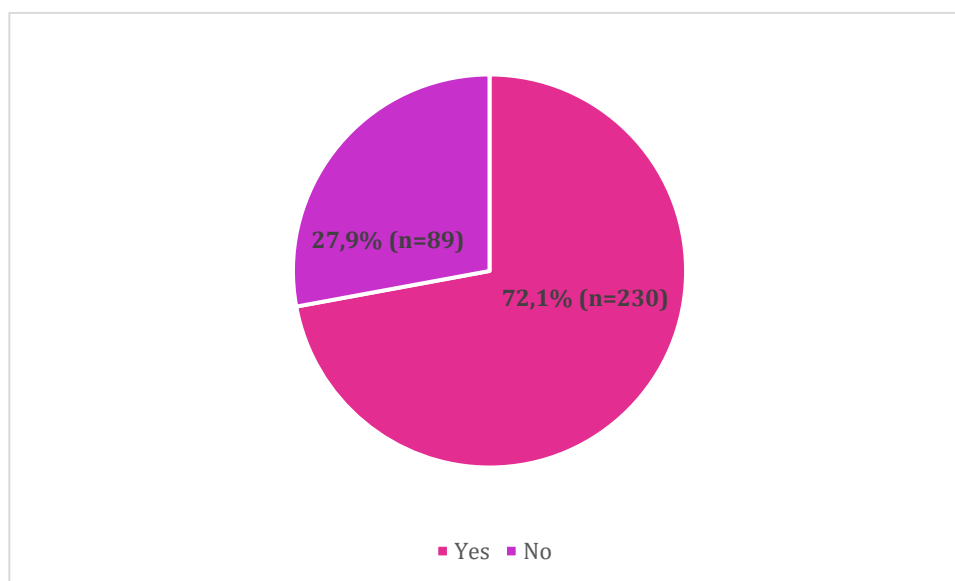


Figure 30: Distribution of participants according to previous use of contraceptive methods

4.2. Characteristics of contraceptive methods use:

As for practice questions, the answers are reported in (table IV).

Spacing births was the most frequently reported reason for contraceptive use (96.95%, n = 223). Among women not using contraception, the most common reasons were wanting more children and being newly married. Birth control pills were the most commonly used method (94.34%, n = 217), and mood swings were the most frequently reported side effect (20.0%, n = 46).

Only 17.82% (n = 41) of participants reported using contraceptives based on a physician's prescription, whereas 81.731% (n = 188) used them without medical prescription.

Table IV : Participants' responses to statements about contraceptive methods use

Statement	Answers	N	%
Reason for using contraceptives (n = 230)	Complete the family	50	21.73%
	Spacing births	223	96.95%
	Improving health	22	9.56%
	Economic benefits	2	0.86%
Reason for not using contraceptives (n = 89)	Want more children	51	57.30%
	Fear of side effects	22	24.71%
	Newly married	52	58.42%
	Husband's opposition	11	12.35%
	Lack of knowledge	5	5.61%
Duration of contraceptive use in years (n = 230)	Two to five years	25	10.86%
	More than five years	97	42.17%
	A year or less	44	19.13%
	Do not remember	44	19.13%
Experienced side effects of family planning methods (n = 230)	Weight gain	17	7.39%
	Mood swing	46	20.0%
	Menorrhagia	12	5.21%
	Decrease libido	7	3.04%
	Metrorrhagia	11	4.78%
	Vaginal infection/uti	4	1.73%
	Acne	8	3.47%
	Delayed recovery of fertility/infertility	1	0.43%
	Dysmenorrhea	0	0%
	Amenorrhea	12	5.21%
	Abortion	1	0.43%
	Unwanted pregnancies	6	2.6%
	Ectopic pregnancy	0	0%

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Statement	Answers	N	%
Contraceptive methods already used (n=230)	Birth control pills	217	94.34%
	Intrauterine device (IUD)	7	3.04%
	Male condom	30	13.04%
	Withdrawal	16	6.95%
	Contraceptive injections	17	7.39%
	Tracking ovulation	19	8.26%
	Breastfeeding	1	0.43%
	Female condom	0	0%
	Spermicide	0	0%
	Contraceptive implant	2	0.86%
	Body temperature	0	0%
	Tubal ligation	2	0.86%
Usage of contraceptives based on a prescription from the physician (n = 230)	Yes	41	17.82%
	No	188	81.73%

5. Additional knowledge questions :

5.1. Knowledge regarding the time limit for taking emergency contraception:

Among the 62 participants aware of emergency contraception, only 35,48% correctly identified the time limit for its use. (figure 31)

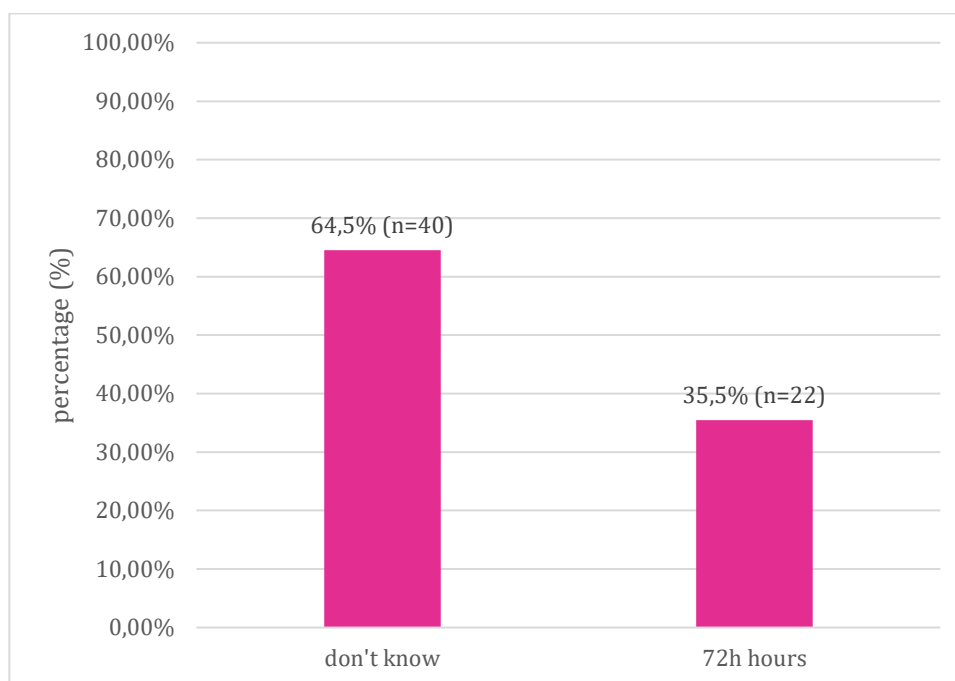


Figure 31: Distribution of participants according to their knowledge of the time limit for taking emergency contraception (n=62)

5.2. Knowledge regarding the management of a missed oral contraceptive pill:

Among the participants, 65.2% (n = 208) reported not knowing what to do after forgetting a contraceptive pill. 22.3% (n = 71) indicated that the missed pill should be taken as soon as possible and that the pills should then be continued as usual. 12.2% (n = 39) reported skipping the missed pill and continuing with the next pill as usual, while 0.3% (n = 1) reported stopping the pills for the rest of the month. (Figure 32)

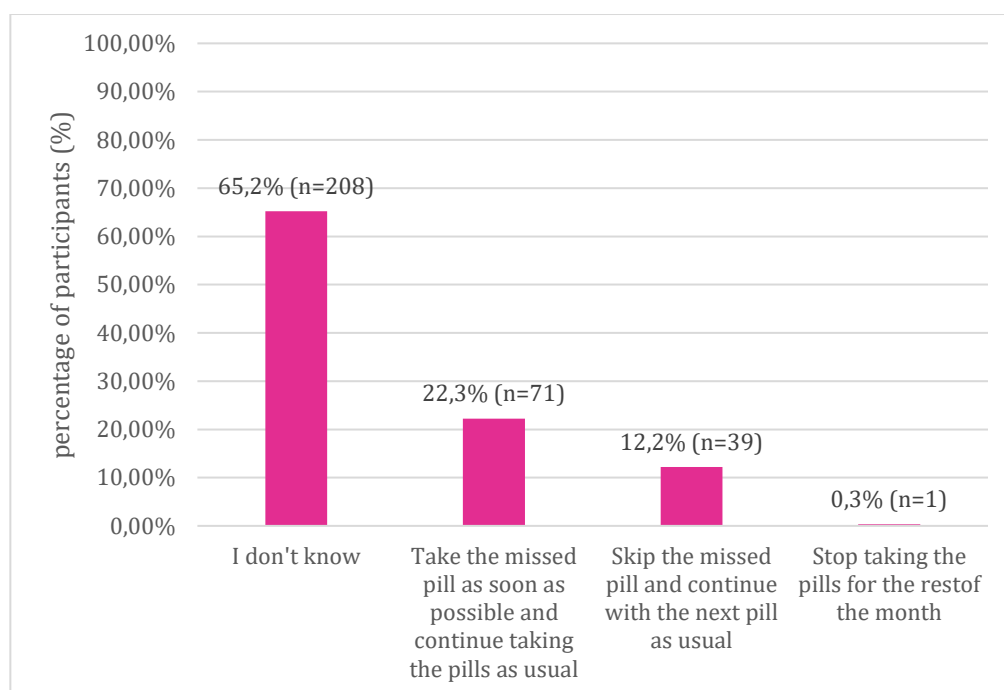


Figure 32: Distribution of participants according to their responses regarding the management of a missed oral contraceptive pill

5.3. Knowledge regarding the effect of contraceptive methods on fertility:

Among the participants, 59.2% (n = 189) reported that contraceptive methods don't cause infertility, 31.7% (n = 101) reported not knowing, and 9.1% (n = 29) reported that contraceptive methods do cause infertility. (Figure 33)

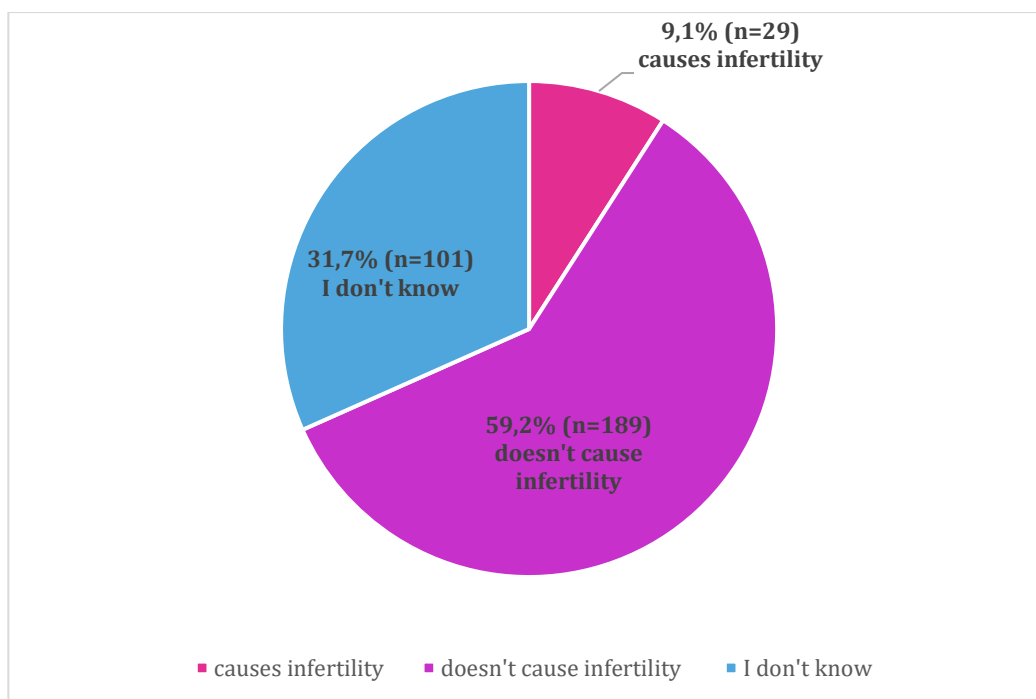


Figure 33: Distribution of participants according to their responses regarding the relationship between contraception and infertility

5.4. Knowledge regarding contraceptive method choice during breastfeeding:

Among the participants, 58.6% (n = 187) reported that breastfeeding women cannot use any contraceptive method, 27.9% (n = 89) reported not knowing, and 13.5% (n = 43) reported that breastfeeding women can use any contraceptive method while breastfeeding. (Figure 34)

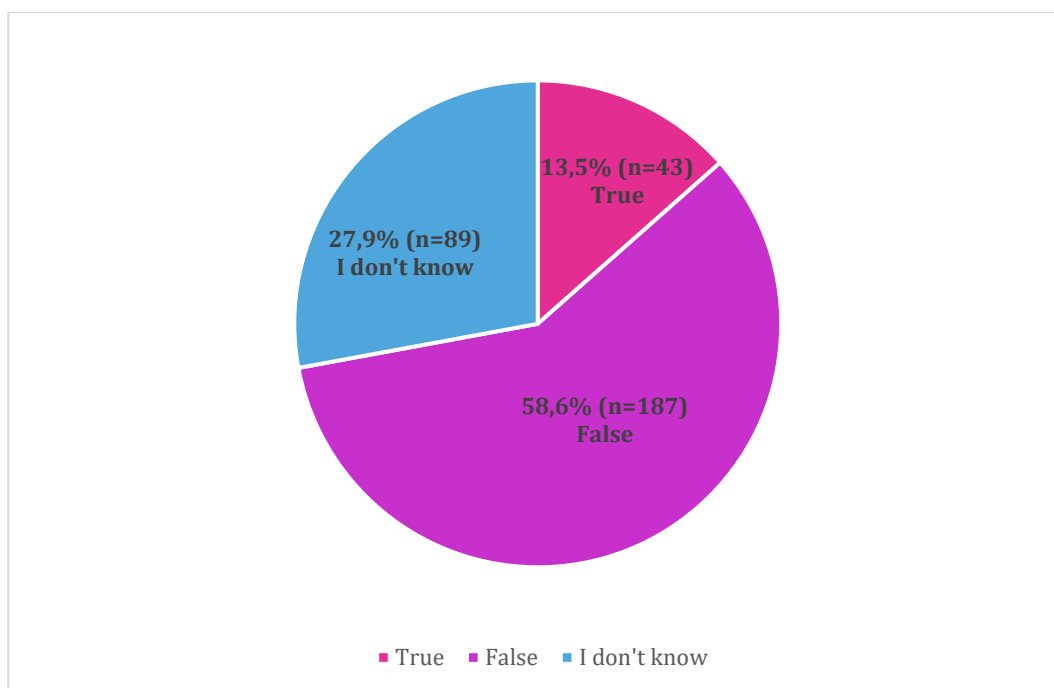


Figure 34: Distribution of participants according to their responses regarding whether breastfeeding women can use any contraceptive method

5.5. Knowledge regarding the belief that contraceptive methods always cause weight gain:

Among the participants, 71.2% (n = 227) reported that contraceptive methods do not always cause weight gain, 22.3% (n = 71) reported not knowing, and 6.6% (n = 21) reported that contraceptive methods always cause weight gain.

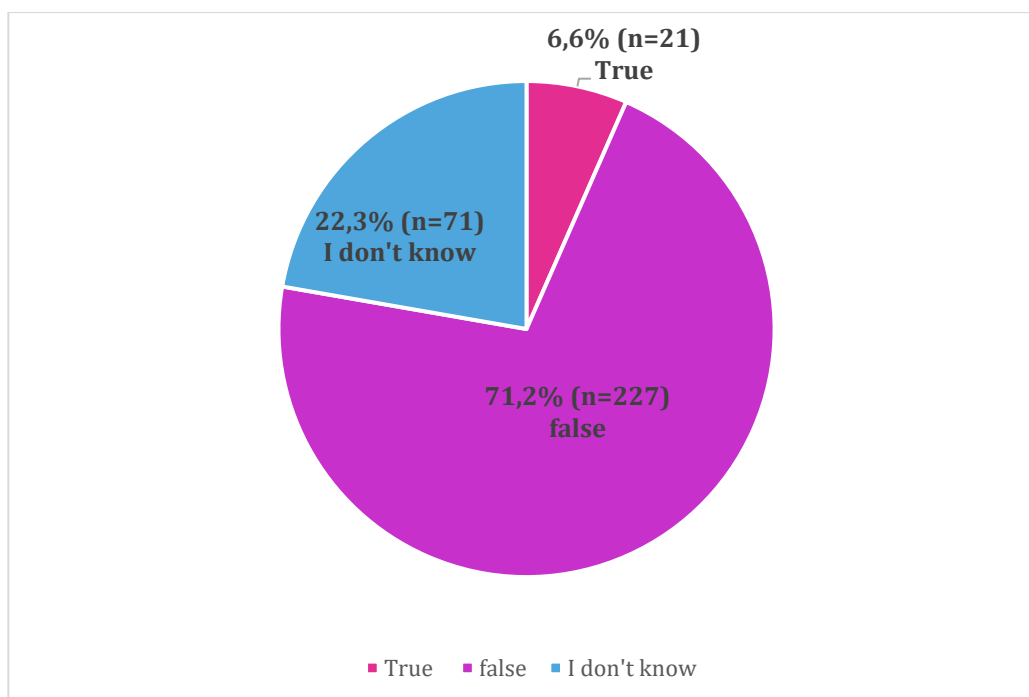


Figure 35: Distribution of participants according to their responses regarding whether contraceptive methods always cause weight gain

5.6. Knowledge regarding the effect of irregular contraceptive use on contraceptive effectiveness:

Among the participants, 59.6% (n = 190) reported that irregular use of contraceptive methods affects their effectiveness, 13.8% (n = 44) reported that irregular use does not affect effectiveness, and 25.4% (n = 81) reported not knowing (Figure 36)

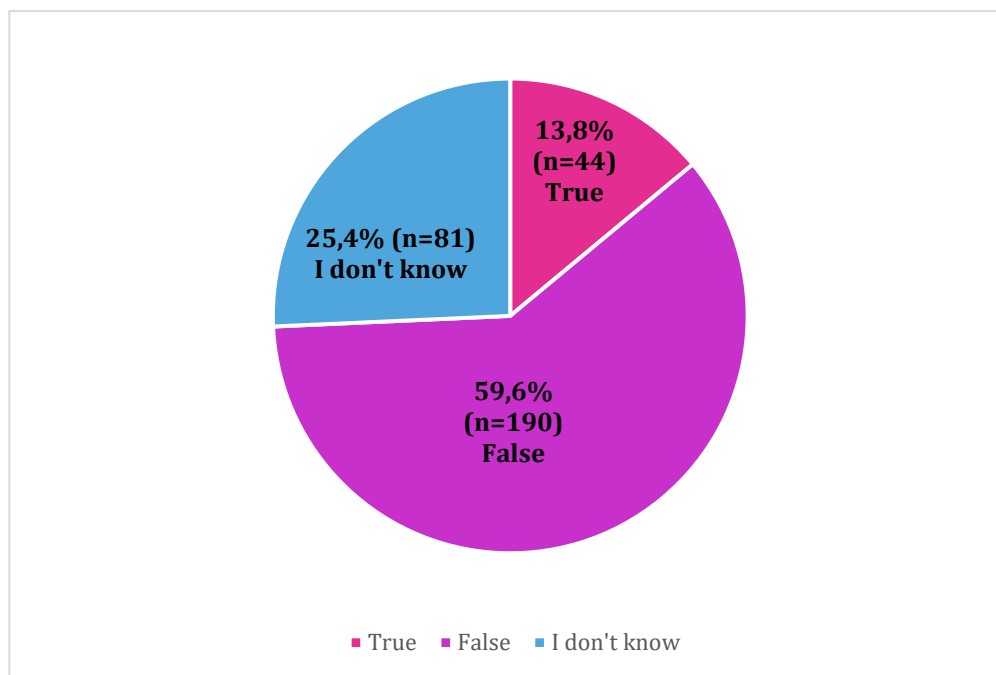


Figure 36: Distribution of participants according to their responses regarding whether irregular use of contraceptive methods affects their effectiveness

5.7. Knowledge regarding the duration of effectiveness of the intrauterine device (IUD):

Among the participants, 85.9% (n = 274) reported not knowing the duration of IUD effectiveness. 10.7% (n = 34) reported that the intrauterine device (IUD) lasts 3–5 years depending on the type, 3.1% (n = 10) reported a duration of 1 year, and 0.6% (n = 2) reported that it is permanent with no expiration.

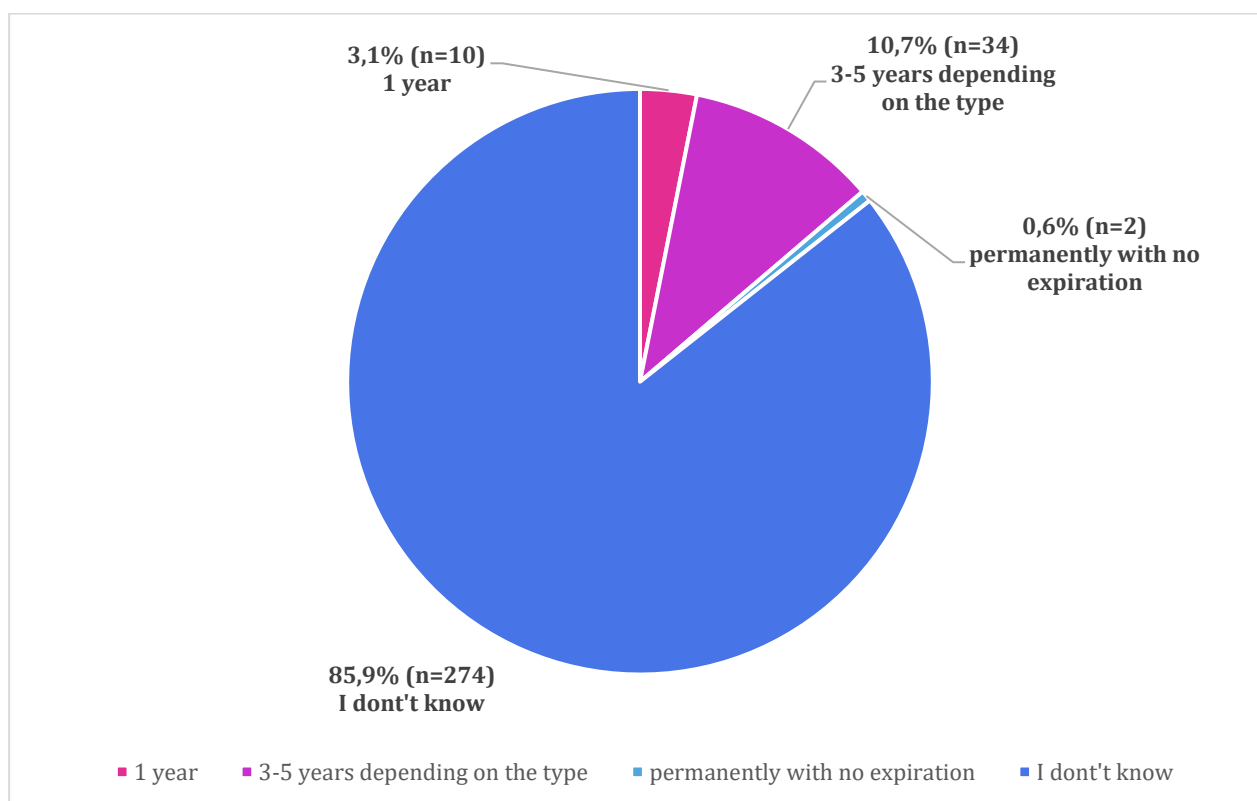


Figure 37: Distribution of participants according to their responses regarding the duration of the intrauterine device (IUD) effectiveness

5.8. Knowledge regarding the effect of using two contraceptive methods simultaneously on contraceptive effectiveness:

Among the participants, 57.4% (n = 183) reported that using two contraceptive methods simultaneously does not increase effectiveness, 36.7% (n = 117) reported not knowing, and 6.0% (n = 19) reported that using two contraceptive methods simultaneously increases effectiveness.

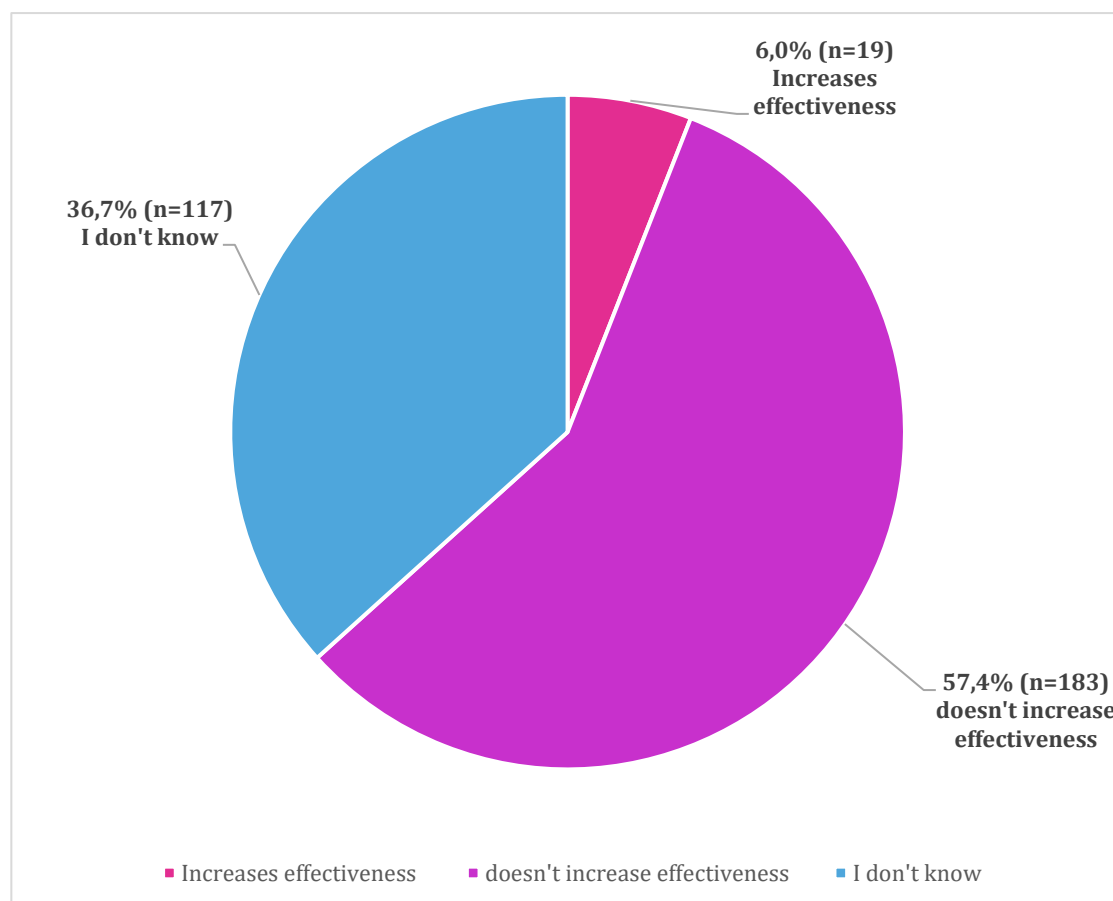


Figure 38: Distribution of participants according to their responses regarding whether using two contraceptive methods simultaneously increases effectiveness

5.9. Knowledge regarding where contraceptive methods can be obtained:

Among the participants, 99.1% (n = 316) selected pharmacies as a source for obtaining contraceptive methods, 96.9% (n = 309) selected doctors or healthcare centers, and 0.6% (n = 2) selected the internet or social media.

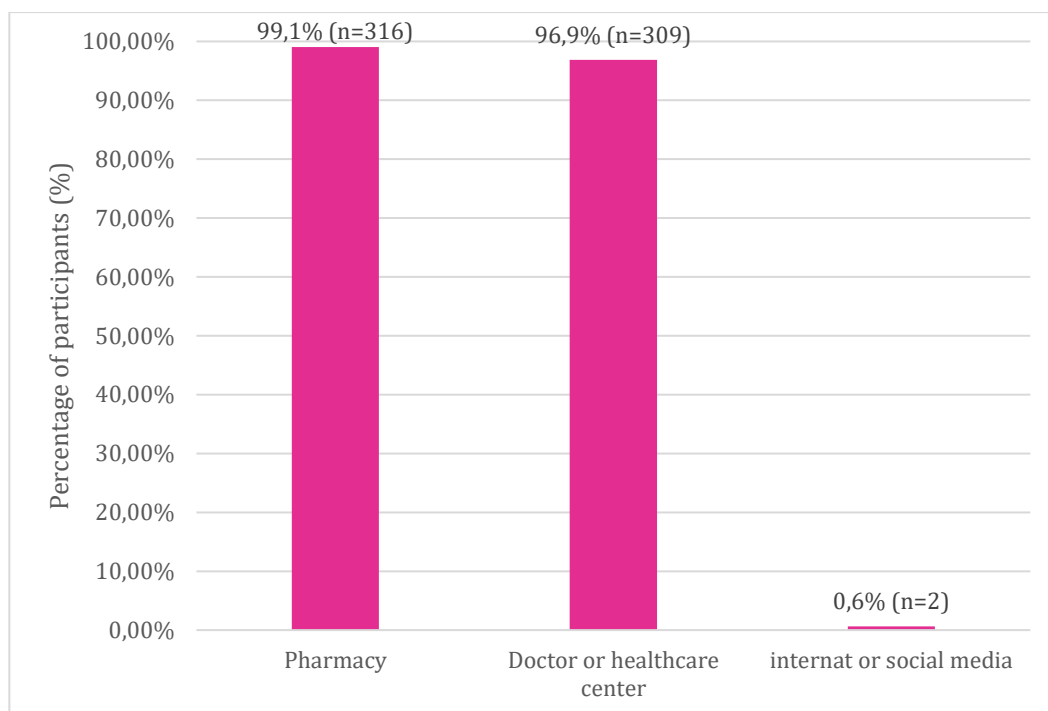


Figure 39: Distribution of participants according to their responses regarding where contraceptive methods can be obtained

6. Answers to the open questions :

In response to the open-ended question, several participants shared additional comments regarding their experiences, perceptions, and suggestions related to contraceptive use. These responses were originally expressed in Moroccan Arabic and were translated into English for reporting purposes. Selected illustrative statements included:

“My husband refuses condoms completely. He says he will never use them.”

“If I could bring my husband here, maybe you could convince him to have a vasectomy.”

“Condoms can be too tight for men, which is why we avoid using them.”

“Contraceptive pills can cause cancer, so I prefer not to use them.”

“The intrauterine device (IUD) might get stuck to the penis during intercourse”

“I have tried several contraceptive methods, but none of them seem to work for me.”

“I really hope to have a boy, so I plan to try for another pregnancy as soon as possible.”

“I have had many pregnancies already and I am tired of having children. I would even prefer to use two contraceptive methods at the same time just to be sure I do not become pregnant again.”

“I only take the pill when my husband comes to visit because we live in different cities. I start it right before he arrives and stop when he leaves.”

“Written information would be more useful than a video. A video is only watched once in the waiting room, but information on paper can be kept, reread, and understood better at home.”

7. Summary of Key Findings:

Table V : Summary of Key Findings of the Study Population

Variable	Category	n (%)
Age (years)	Mean $\pm$ SD	28.3 $\pm$ 6.5
Place of residence	Rural	238 (74.6%)
	Urban	81 (25.4%)
Educational level	$\leq$ Primary	200 (62.69%)
	$\geq$ Middle school	119 (37.3%)
Social media use	Yes	255 (79.9%)
	No	64 (20.1%)
Marital status	Married	305 (95.6%)
	Divorced	8(2.5%)
	Single	5(1.6%)
	Widowed	1(0.3%)
Unwanted pregnancy	Yes	96 (30.00%)
	No	223 (69.91%)
Attitudes towards contraceptive methods	Positive	294(92.2%)
	Negative	25(7.8%)
Previous contraceptive use	Yes	230 (72.1%)
	No	89 (27.9%)
Awareness of contraception purpose	Yes	318 (99.69%)

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Knowledge of the most effective contraception method	Correct	20 (6.3%)
Sexually transmitted infections (STIs) protection knowledge	Correct	46 (14.4%)
Awareness of permanent methods (tubal ligation)	Yes	170 (53.3%)
Awareness of permanent methods (vasectomy)	Yes	16 (5.0%)
Emergency contraception awareness	Yes	62 (19.4%)
Correct Emergency contraception time window (among aware)	Correct	22 (35.5%)
Source of knowledge	Family and friends	303 (95.0%)
	Social media / internet	235 (73.7%)
	Healthcare providers	27 (8.5%)
	Television	36 (11.3%)
Knowledge level	Good	67 (21.0%)
	Poor	252 (79.0%)

II. Analytical study:

Cross-tabulations between contraceptive knowledge level and participants' characteristics were performed, and associations were assessed using chi-square tests for categorical variables and student's t-test for continuous variables. The results are presented in (table VI).

Cross-tabulation of participants' characteristics according to contraceptive knowledge level revealed that the proportion of good knowledge was higher among women with middle school education or higher compared with those with primary education or less (28.5% vs 16.5%). Similarly, women who reported using social media showed a higher proportion of good knowledge than those who did not use social media (23.1% vs 10.9%). Women who had previously used contraceptive methods also demonstrated a higher proportion of good knowledge compared with those who had never used contraception (23.9% vs 13.5%).

In addition, women with a history of unwanted pregnancy showed a higher proportion of good knowledge than those without such history (30.2% vs 16.7%).

Table VI : Cross-tabulation and bivariate analysis of factors associated with contraceptive knowledge

Variable	Good knowledge %(n)	Poor knowledge %(n)	P-value
Age (years)	29.22 ± 6.08	28.00 ± 8.60	0.171
Education			0.010
≤ primary	16.5% (n=33)	83.5% (n=167)	
≥middle school	28.5% (n=34)	71.4% (n=85)	
Place of residence			0.321
Urban	18.5% (n=15)	81.5% (n=66)	
Rural	21.8% (n=52)	78.2% (n=186)	
Employment status			0.493
Yes	18.2% (n=4)	81.8% (n=18)	
No	21.2% (n=63)	78.8% (n=234)	
Health insurance coverage			0.123
Yes	23.1% (n=49)	76.9% (n=163)	
No	16.8% (n=18)	83.2% (n=89)	
Social media use			0.017
Yes	23.5% (n=60)	76.5% (n=195)	
No	10.9% (n=7)	89.1% (n=57)	
Previous contraceptive use			0.026
Yes	23.9% (n=55)	76.1% (n=175)	
No	13.5% (n=12)	86.5% (n=77)	

Women's Knowledge of Contraception: Assessment and Recommendations for an Educational Initiative in the Obstetrics and Gynecology Department of Mohammed the VI University Hospital, Marrakesh

Variable	Good knowledge %(n)	Poor knowledge %(n)	P-value
Unwanted pregnancy			0.006
Yes	30.2% (n=29)	69.8% (n=67)	
No	16.7% (n=37)	83.3% (n=185)	
Age at first childbirth			0.349
<20 years	20.2% (n=23)	79.8% (=91)	
≥20 years	22.8% (n=44)	77.2% (149)	
Access to basic services			0.387
Yes	21.3% (n=67)	78.7% (n=248)	
No	0% (n=0)	100% (n=4)	
Access to healthcare facility nearby			0.132
Yes	22.3% (n=59)	77.7% (n=205)	
No	14.5% (n=8)	85.5% (n=47)	
Attitude			0.102
Negative	8.7% (n=2)	91.3% (n=21)	
Positive	22.0% (n=65)	78.0% (n=231)	
Pregnancy history			0.792
No	0.0% (n=0)	100.0% (n=1)	
Yes	20.8% (n=66)	79.2% (n=252)	

Chi-square test was used for categorical variables and student's t-test for continuous variables; $p < 0.05$ was considered statistically significant.

Cross-tabulation analysis showed several factors significantly associated with contraceptive knowledge among participants.

- Higher educational level was significantly associated with a good knowledge level ($p = 0.010$).
- Using social media was significantly associated with a good knowledge level ($p = 0.017$).
- Previous contraceptive use was significantly associated with knowledge level ($p = 0.026$).
- A history of unwanted pregnancy was significantly associated with knowledge level ($p = 0.006$).

No statistically significant associations were observed between contraceptive knowledge and age, place of residence, employment status, health insurance coverage, access to basic services, access to healthcare facilities, attitude toward contraception, pregnancy history, or age at first childbirth ($p > 0.05$).



DISCUSSION



I. Discussion of our results :

1. Sample size and population:

The characteristics of the study population in our study are comparable to those reported in the literature, while reflecting the particularities of a hospital-based setting. Our study included 319 women admitted to the obstetrics and gynecology Department of a tertiary care hospital in Marrakesh, with an age range of 18–49 years.

Similar hospital-based populations have been described in several studies as shown in (Table VII), including those conducted in India (Keerthi et al.[22]) and Morocco (Ouazzani et al.[23]), where participants were recruited from women attending obstetrics or gynecology departments. These settings, as in our study, provide access to women with diverse reproductive trajectories and varying degrees of interaction with the healthcare system.

In contrast, other studies have relied on community-based samples, such as sexually active women in rural Cameroon (Nansseu et al.[24]) or women from the general population in Saudi Arabia (Alameer et al.[25]), while some have focused on specific subgroups, including students (Niciza et al.[26], Berhanu et al.[27]). These differences in study populations are important to consider, as they may influence the level and nature of contraceptive knowledge, particularly given the varying exposure to healthcare information and services.

Regarding sample size, our study ($n = 319$) falls within the range commonly reported in the literature. While larger samples have been described, such as the study conducted in Malawi by Chipeta et al.[28] ($n = 1115$), it is important to note that this population included both men and women from rural communities, which partly explains the higher number of participants. Other studies reported smaller or comparable samples, such as those conducted in Iraq by Salh et Abdulridha[29] ($n = 80$) and Cameroon by Nansseu et al.[24] ($n = 101$), highlighting the variability in sample sizes depending on study design and setting.

An all-ages inclusive strategy was adopted by studies such as those conducted in Saudia Arabia by Alameer et al.[25], including all women aged above 18, in Malawi (Chipeta et al.[28]), which included participants aged from 15 to 65 years, and in Cameroon (Nansseu et al.[24]), where women up to 58 years were included. This broader inclusion reflects an interest not only in current contraceptive needs but also in understanding knowledge patterns across the entire reproductive life course and beyond.

Table VII : Comparison of study populations and sample characteristics across studies

Author	Country	Year	Population	Age range	Sample size
Nansseu et al.[24]	Cameroon	2015	Sexually active women living in a rural health district (Mbouda)	18–58 years	101
Alameer et al.[25]	Saudia Arabia	2022	Adult women from the general population	≥18 years	560
Keerthi et al.[22,27]	India	2026	Reproductive–age women attending a tertiary care hospital	17–49 years	400
Chipeta et al.[28]	Malawi	2010	Men and women from rural communities	15–65 years	1115
Ouazzani et al.[23]	Morocco	2022	Postpartum women delivering at a provincial maternity hospital (Sidi Lahcen, Temara)	18–45 years	132
Salh et Abdulridha.[29]	Iraq	2025	Women attending a family planning service	18–49 years	80
Niciza et al.[26]	Turkish Republic of Northern Cyprus	2025	International nursing students	17–37 years	297
Berhanu et al.[27]	Ethiopia	2022	Female secondary and preparatory school students	14–22 years	263
Our study	Morocco	2025	Women admitted to the Obstetrics and Gynecology department	18–49 years	319

2. Educational level:

The distribution of educational level in our study shows that nearly half of the participants (49.8%) had only primary school education, while 37.3% had reached middle school or higher, and 12.9% were illiterate. This pattern is consistent with findings from other studies, such as those conducted by Joshi et al.[30], Hitayezu et al.[31], and Makde et al.[32], where the majority of participants were concentrated in the lower educational categories (Figure 40). Notably, all included studies reported the presence of illiterate participants, although proportions varied considerably highlighting differences in population characteristics and study settings.

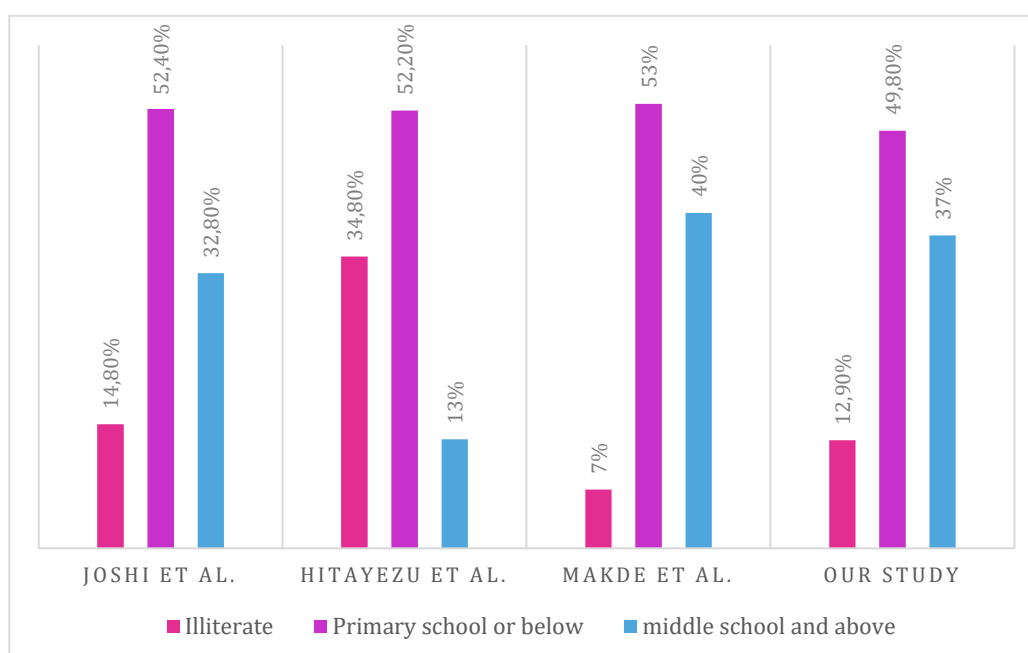


Figure 40: Educational Level Distribution Across Studies (Joshi et al.[30], Hitayezu et al.[31], and Makde et al.[32], and our study)

3. Socio-demographic profile:

The socio-demographic profile of the participants in our study reflects a population characterized by relatively low socioeconomic status and a predominantly rural origin, which is consistent with the typical population attending public tertiary healthcare facilities in Morocco.

In our study, more than half of the participants reported a low monthly income, and the vast majority were not employed. This pattern is in line with findings reported in various studies such as a survey conducted in India by Panda et Rath[33] with 68.9% being unemployed and 93.2% belonging to lower socio-economic status that may influence both access to health information and patterns of contraceptive use, as women may rely more on informal sources of information and have limited exposure to structured health education.

In addition, a large proportion of our participants resided in rural areas. This distribution is comparable to studies conducted in Morocco such as the one by Ouazzani et al. with 70% of the participants coming from the rural area. Rural residence has been associated in the literature with reduced access to reproductive health information and services, as well as lower levels of formal education, which may contribute to disparities in contraceptive knowledge.

In our study population nearly all participants had experienced at least one pregnancy (99,4%). This profile indicates that the participants were not only exposed to reproductive health services but had also navigated multiple reproductive events throughout their lives. This characteristic allows the assessment of contraceptive knowledge in women with real-life reproductive experience rather than theoretical exposure. Similar approaches have been adopted in hospital-based studies focusing on women attending obstetric and gynecological services like Yacoubi et al.[34].

4. Awareness of contraceptive methods:

In our study, awareness of contraceptive methods was observed in 99,69% of participants, indicating that the majority of women had heard about at least one contraceptive method and were aware of its general purpose. Similar levels of awareness have been reported in several studies conducted in different settings as presented in (Table VIII)

For instance, a cross-sectional survey conducted in Uganda by Nsubuga et al.[35] reported that 99,6% of women were aware of contraceptive methods, while a study in Tanzania by Somba et al.[36] found an awareness rate of 100% among women of reproductive age. Comparable findings were also reported by Makde et al.[32] and Mubashar et al.[37], which documented awareness rates of 97,3% and 99,2%, respectively.

Likewise, the study of Coulibaly et al., conducted among women attending the national institute of public health in Abidjan[38], found that 93,77% of participants had heard of contraceptive methods. Shukla et al. conducted a knowledge, attitude and practices (KAP) study in India[39] reporting an awareness rate of 91%, while Masirika et al.[40] observed that 84,4% of women were familiar with different contraceptive methods. Finally, Tilahun et al.[41] also highlighted a high level of awareness, with 94% of participants reporting knowledge of contraception.

These findings suggest that awareness of contraceptive methods is generally high in many populations.

However, awareness of contraceptive methods should not be interpreted as adequate or accurate knowledge. Several studies[42,43] have highlighted that although women may have heard of contraceptive methods, their understanding of mechanisms of action, effectiveness, and correct use remains limited.

This suggests that simple awareness of contraception is insufficient, therefore, public health interventions should aim not only to increase awareness of contraception but also to promote adequate and comprehensive knowledge of the different contraceptive methods.

Table VIII : Reported levels of awareness of contraceptive methods in different populations

Author	Country	year	Sample size (n)	Awareness rate (%)
Nsubuga et	Uganda	2016	1008	99,6%
Somba et al.[36]	Tanzania	2014	253	100%
Makde et al.[32]	India	2023	300	97,3%
Coulibaly et	Ivory Coast	2023	289	93,8%
Mubashar et al.[37]	Saudia Arabia	2016	500	99,2%
Shukla et al.[39]	India	2017	547	91%
Masirika et al.[40]	Democratic Republic of the	2018	316	84,8%
Tilahun et al.[41]	Ethiopia	2013	811	94%
Our study	Morocco	2026	319	99,69%

5. Knowledge of different contraceptive methods:

In our study, oral contraceptive pills were the most frequently cited contraceptive method (98.7%), followed by injectable contraception (75.9%), male condoms (74.0%), intrauterine devices (70.8%), tubal ligation (68.0%), and vasectomy (6.6%).

A similarly high level of awareness of oral contraceptive pills was reported in several studies (Figure 41), Rua et al.[44] reported that 99% of participants were aware of contraceptive pills in Portugal, while Alhassan et al.[45] found a rate of 82.9% in Saudi Arabia, and Craig et al.[46] reported 98% awareness among women in the United states of America(USA). However, Shukla et al.[39] observed a relatively lower level of awareness in India (66.3%). These findings confirm that oral contraceptive pills remain one of the most widely recognized contraceptive methods worldwide, likely due to their long history of use and widespread promotion in family planning programs.

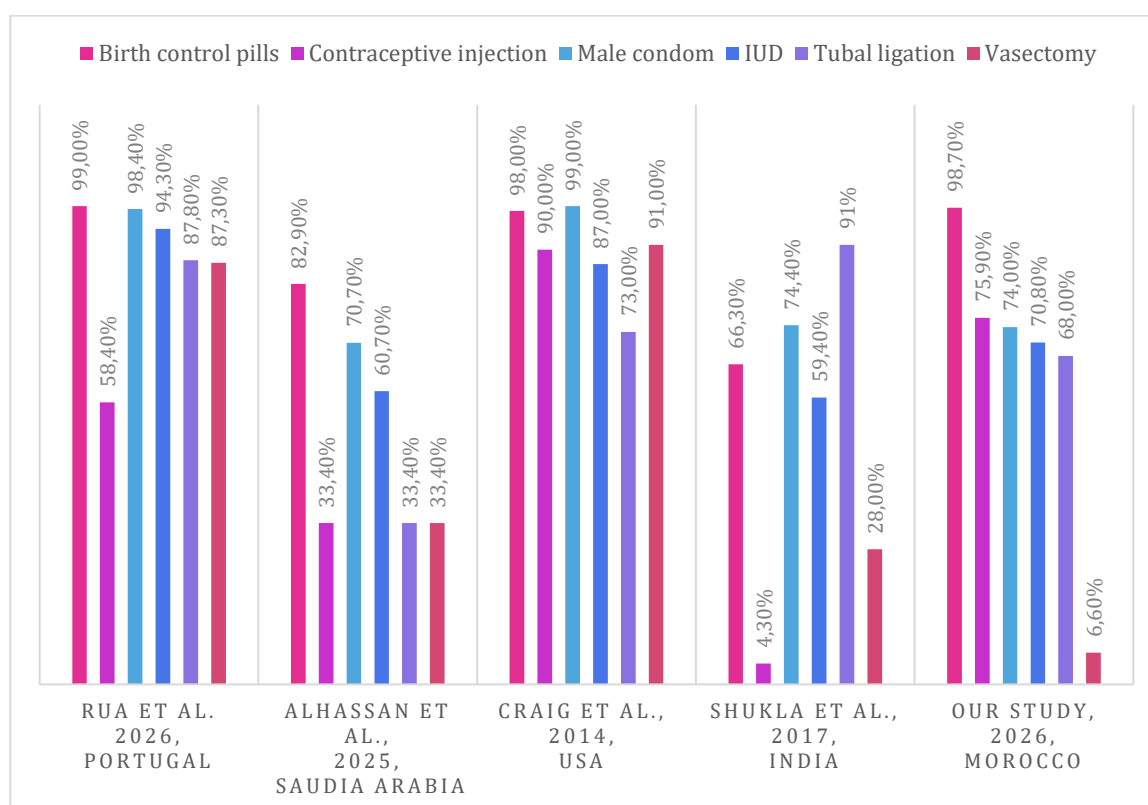


Figure 41: Comparison of awareness of each contraceptive method across selected studies (Rua et al.[44], Alhassan et al.[45], Craig et al.[46], Shukla et al.[39]) and our study

Oral contraceptive pills were overall the most recognized contraceptive method across most of the studies, while vasectomy remained a less known method.

However, the pattern observed in our study shows some differences compared with other studies. In several studies, male condoms ranked second after pills, as observed in Portugal[44] and Saudi Arabia[45]. In contrast, in our population injectable contraception was the second most cited method, preceding male condoms. This difference may reflect the specific organization of family planning services in Morocco, where injectable contraceptives are widely available in primary health care centers and are often provided free of charge within national reproductive health programs[47].

The relatively high level of awareness of injectable contraception in our study may partly reflect the increasing promotion of this method. In Morocco, pilot initiatives have been conducted to assess the feasibility of self-administration of subcutaneous injectable contraception, aiming to expand access to family planning services. Such initiatives may have contributed to greater visibility and familiarity with injectable contraceptive methods among women [48].

In contrast, vasectomy remained less known contraceptive in most studies, including ours. This finding may be explained by limited promotion of male sterilization, cultural perceptions regarding male contraception, and the predominance of female-centered family planning strategies in many health systems [49–51].

Overall, these comparisons suggest that while awareness of contraceptive methods is generally high across different populations, the ranking of specific methods may vary depending on national family planning policies, availability of services, and cultural factors influencing contraceptive choices.

In our study, awareness of natural contraceptive methods was moderate among participants. Withdrawal was recognized by 56.7% of respondents, while 47.6% reported knowledge of ovulation tracking. Awareness of the lactational amenorrhea method (LAM) was reported by 44.5% of participants. Similar findings have been reported in several studies, where natural contraceptive methods were known by a moderate proportion of women but remained less recognized than modern contraceptive methods. For instance, Kalia et al.[52] reported 38.6% of women in Chandigarh, India, had heard about the lactational amenorrhea method, while only 7% of the participants in the study were aware of its contraceptive effect, while Pirincci E et al.[53], in Turkey, reported that 82.5% of women believed breastfeeding does not protect against pregnancy, showing low knowledge of lactational amenorrhea method (LAM). In one survey done by Majhi et al.[54] only 43.3% of women reported knowing withdrawal and ovulation tracking.

This pattern may be explained by the fact that natural contraceptive methods rely on accurate knowledge of the menstrual cycle and the identification of the fertile period, which may limit their dissemination compared with methods that do not require such detailed understanding[55].

6. Knowledge of the most effective method:

In the present study, only 6.3% of participants were able to correctly identify the intrauterine device (IUD) as the most effective contraceptive method among the options provided in the questionnaire, indicating a very limited level of knowledge regarding contraceptive effectiveness. While many women may be aware of the existence of different contraceptive methods, understanding their relative effectiveness appears to be considerably lower.

As illustrated in (Figure 42), long-acting reversible contraceptive methods such as intrauterine devices represent some of the most effective contraceptive options available. However, awareness of this hierarchy of effectiveness appears to remain limited among many women.

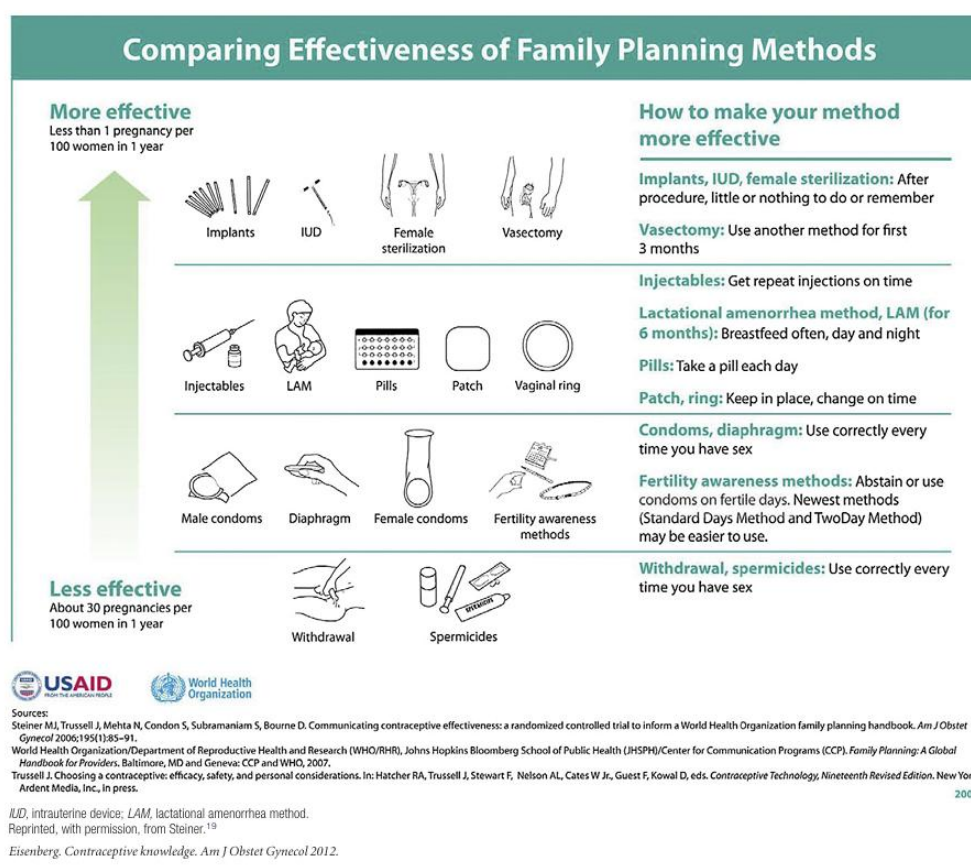


Figure 42: Comparative effectiveness of contraceptive methods.

Source : Adapted from Eisenberg DL et al., 2012 [56].

Similar approaches have been adopted in some studies that clearly defined the correct answer, for instance a study conducted in Vietnam by Gallo et al.[57] found that only 30.6% of women correctly identified the intrauterine device (IUD) as the most effective method.

In contrast, other studies have reported higher levels of knowledge; however, these findings should be interpreted with caution, as several contraceptive methods were accepted as correct responses. For example, in the study ran by Rua et al.[44] methods including oral contraceptive pills, injectable contraceptives, and intrauterine devices were all considered valid answers when participants were asked to identify the most effective method, which may explain the high correct answer rate of 24,3%.

In our study, even though 58,3% of the participants reported not knowing which contraceptive method was the most effective, a significant majority of 27.9% incorrectly believed the birth control pills to be the most effective. Similar findings have been reported in a study conducted in the United states of America (USA) by Kakaiya et al.[58] where 85% of their sample overestimated the efficacy of combined oral contraceptives.

This perception may partly explain the widespread preference for oral contraceptives in many settings. Indeed, previous research has shown that women's perception of the effectiveness of a contraceptive method significantly influences their choice and use of contraception.[59,60]

These findings highlight the importance of improving women's understanding of the relative effectiveness of available contraceptive methods in order to support informed decision-making.

7. Knowledge of the contraceptive method that protects against sexually transmitted infections:

(Table IX) presents a comparison between our findings and those reported in several international studies regarding the recognition of condoms as a method of protection against sexually transmitted infections (STIs).

Considerable variability was observed across studies. While relatively high rates of knowledge were reported in studies conducted among young people or university students, such as those by Ritter et al[61]. in Australia (94%), Cegolon et al.[62] in Italy (86.9%), and Rua et al.[44] in Portugal (94.9%), lower numbers were reported in other studies, including Kongnyuy et al.[63] in Cameroon (15.5%) and Alkalash et al.[6] in Saudi Arabia (29.7%). In our study, only 14.4% of participants correctly identified condoms as a method that prevents sexually transmitted infections.

Differences between studies may partly be explained by variations in the populations studied, including age, educational level, and exposure to sexual health information [64,65].

It is also important to consider differences in the way knowledge was assessed across studies. In several surveys some respondents also incorrectly identified other contraceptive methods, such as oral contraceptive pills, as protective against sexually transmitted infections (STIs), for instance, Cegolon et al.[62] reported 24,6% of women selecting the contraceptive pill as one of the most efficacious methods to prevent sexually transmitted infections (STIs), while Ritter et al.[61] reported that 41% of the women in the study answered that most contraceptives protect against sexually transmitted infections (STIs).

Consequently, the recognition of condoms in these contexts does not necessarily reflect accurate knowledge of STI prevention if participants simultaneously believe that other contraceptive methods offer similar protection. This may have contributed to the higher levels of reported knowledge observed in some studies.

Table IX : Recognition of condoms as a method of protection against sexually transmitted infections STIs across different studies

Study	Country	Year	Sample size	Population studied	% of knowledge of the condom as protection from STIs
Alkalash et al.[6]	Saudia Arabia	2023	400	females of reproductive age	29,75%
Kongnyuy et al.[63]	Cameroon	2016	399	street adolescents	15,5%
Rua et al.[44]	Portugal	2025	490	Women aged 15–49	94,9%
Ritter et al.[61]	Australia	2015	119	Young people aged 14 to 24	94,0%
Cegolon et al.[62]	Italy	2022	3194	University students	86,9%
Our study	Morocco	2026	319	Adult Women aged 18 to 49	14,4%

Another possible explanation for the lower recognition of condoms as a method of protection against sexually transmitted infections in our study may relate to differences in perceived risk of sexually transmitted infections (STIs) exposure across populations. In several studies reporting higher levels of knowledge, such as those conducted in Portugal, Australia, and Italy, the populations studied included adolescents, university students, or young adults, groups in which premarital sexual activity is more commonly reported and where sexual health education often emphasizes sexually transmitted infections (STIs) prevention. In contrast, our sample, similar to the Saudi Arabian one, consisted primarily of married women of reproductive age. In such populations, sexual activity may occur predominantly within marriage, and the perceived risk of sexually transmitted infections (STIs) exposure may therefore be lower. This reduced perceived risk may limit the attention given to sexually transmitted infections (STIs) specific prevention methods.

8. knowledge of permanent contraceptive methods:

In our study, 53.3% of women correctly identified tubal ligation as a permanent method, whereas only 5.0% recognized the permanent nature of vasectomy. Similar disparities have been reported in other settings. In the study conducted by Alkalash et al.[6] in Al-Qunfudhah, Saudi Arabia, only 19.75% of participants knew that tubal ligation was permanent, and only 1% recognized vasectomy as a permanent method. In contrast, a study conducted in Ethiopia by Mekonnen et al.[66] reported that approximately one-third of participants were aware that vasectomy is a permanent contraceptive method. Meanwhile, a study from Philadelphia (United States of America) by Leung et al.[67], assessing the understanding of permanent contraception and their irreversible nature, found that 55% of participants correctly identified tubal sterilization as irreversible.

This moderate level of knowledge observed raises important considerations regarding informed contraceptive decision-making. Adequate understanding of the permanent nature of sterilization is essential to ensure that individuals choosing these methods are fully aware of their implications. Previous research has shown that insufficient counselling or misunderstanding of the irreversible nature of sterilization may contribute to post-sterilization regret.[68,69]

Evidence from international surveys further highlights the persistence of gaps in counselling regarding the permanent nature of sterilization.[3] In several countries, including Morocco, a proportion of women who underwent sterilization reported that they had not been informed that the procedure was irreversible. (Figure 43)

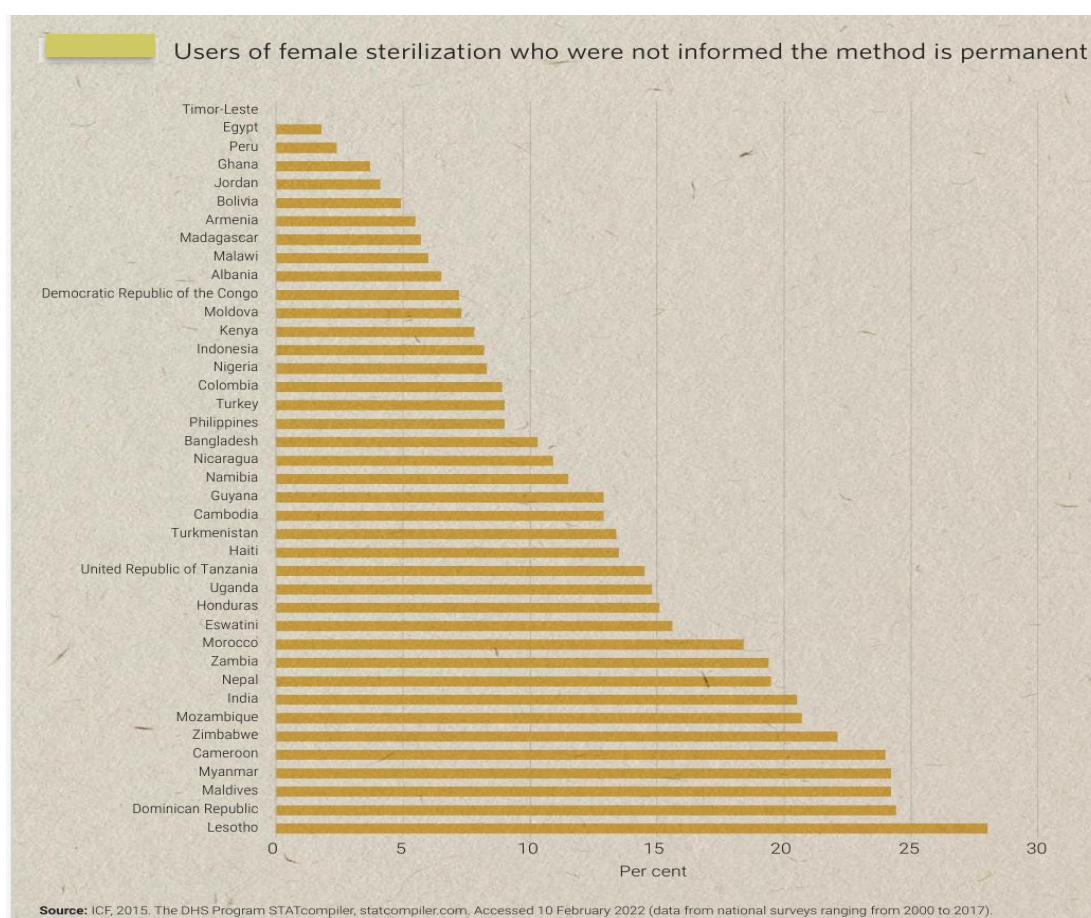


Figure 43: Proportion of women undergoing female sterilization who reported not being informed that the procedure is permanent in selected countries (DHS surveys 2000–2017).

Source: United Nations Population Fund. State of World Population 2022: Seeing the Unseen – The case for action in the neglected crisis of unintended pregnancy. New York: UNFPA; 2022 [3].

Also, the extremely low awareness regarding vasectomy may reflect the limited involvement of men in the actual practice of contraception. While men may influence reproductive decisions within couples, contraceptive responsibility in many contexts remains predominantly carried by women [70,71].

9. Knowledge of the side effects of contraceptives:

In our study, the most commonly identified side effects were weight gain (73.7%) and mood swings (68.3%), followed by acne (42.6%) and menstrual disturbances such as metrorrhagia (33.5%) and menorrhagia (32.6%). Comparable patterns were observed in several studies, where weight gain and mood changes were also among the most frequently recognized adverse effects. For instance, Fouad et al.[72] reported particularly high levels of awareness of mood swings (94.7%) and weight gain (79.2%), and Machado et al.[73] similarly found weight gain to be widely recognized (72.0%). However, other side effects, particularly those related to sexual function or infections, were less frequently identified across studies (Table X) These variations may reflect the low access to reproductive health information, and the extent of contraceptive counselling provided through healthcare services.

Table X : Comparison of women's knowledge of contraceptive side effects across studies

Author	Recognized side effects of contraceptive methods							
	Weight gain	Mood swings	Acne	Metrorrhagia	menorrhagia	Decrease of libido	Dysmenorrhea	Vaginal infections
Alkalash et al.[6]	52,25%	72,0%	52,75%	47,75%	53,50%	43,25%	44,50%	58,75%
Alhusain et al.[74]	42,5%	48,6%	4,8%	20,4%	17,1%	7,7%	4,9%	8,3%
Fouad et al.[72]	79,2%	94,7%	49,3%	–	59,1%	–	–	–
Khiba et Nyangu[75]	20,1%	–	–	–	20,1%	10,3%	–	–
Machado et al.[73]	72,0%	33,0%	25,0%	–	–	13%	14,0%	–
Our study	73,7%	68,3%	42,6%	33,5%	32,6%	30,4%	12,5%	11,0%

The variability observed in the recognition of contraceptive side effects may also be related to the quality and completeness of information provided to women when initiating contraception. United Nations Population Fund (UNFPA) State of World Population 2022 report[3], highlighted that a substantial proportion of women using modern contraceptive methods report receiving insufficient information regarding the characteristics of the method, including potential side effects and their management. (Figure 44). In Morocco, as showed in the figure, only a limited proportion of women using modern contraceptive methods reported receiving information about the side effects. This gap in counselling may partly explain the heterogeneous levels of knowledge of contraceptive side effects observed in our study, as insufficient or incomplete information provided during family planning services may contribute to both limited awareness of actual side effects and the persistence of misconceptions.

These findings suggest that improving counselling practices may play an important role in strengthening women's knowledge of contraceptive methods and their side effects.

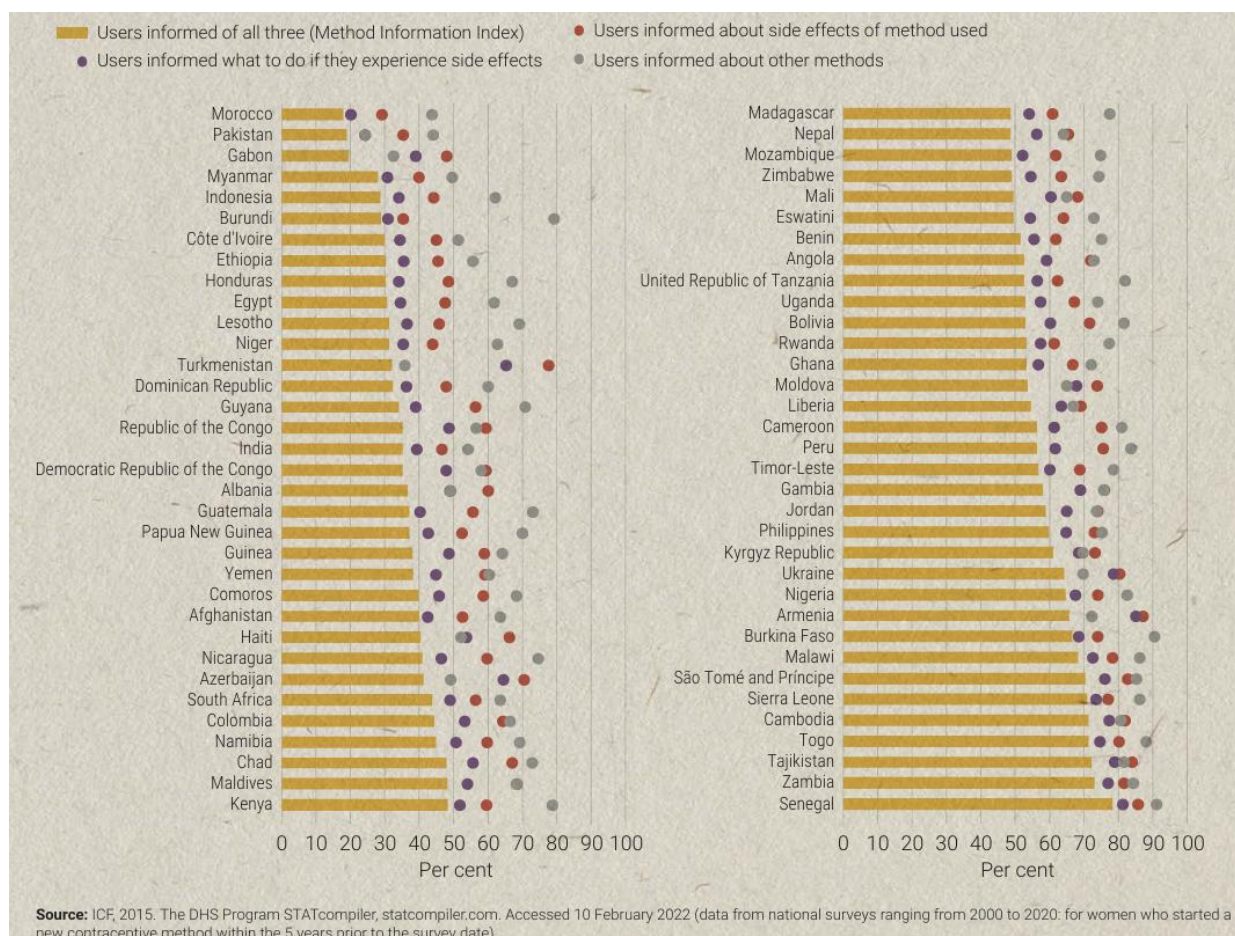


Figure 44: Information received by women initiating modern contraceptive methods regarding their characteristics and side effects across selected countries. (Source: Adapted from United Nations Population Fund (UNFPA), State of World Population 2022, based on DHS data.)[3].

While several adverse effects of hormonal contraception were correctly recognized by participants, misconceptions regarding contraceptive side effects were also observed. One of the most frequently reported misconceptions concerns the belief that hormonal contraception may cause permanent infertility or delayed return of fertility, similar findings were reported in the survey ran by Fouad et al.[72] where 62,1% of the participants believed that hormonal contraception causes infertility. Alkalash et al.[6] reported that 35,75% of their sample selected infertility as a possible side effect of contraceptive methods.

Abortion was also thought to be a side effect of contraceptive methods by 21,9% of the women in our study. Similar beliefs have been reported in other studies, although at lower rates, such as 9% in the study by Alhusain et al.[74] and 4% in the study conducted by Alkalash et al.[6]

Such misconceptions may arise from incomplete or inaccurate information received during counselling, as well as from informal sources such as social networks.

10. Knowledge of emergency contraception:

The level of awareness of emergency contraception in our study was 19.4%, which remains relatively low. Similar levels of awareness (Table XI) were reported in Morocco by Yacoubi et al.[34] (12%) and Ouazzani–Touhami et al.[23] (11%), as well as in Brazil by Machado et al.[73] (11%), suggesting that knowledge of emergency contraception remains limited in certain populations of women of reproductive age. Slightly higher levels of awareness were reported in Saudi Arabia[6] (27.75%), India[22] (30.25%), Nigeria[76] (33.3%), and Nepal[77] (34.6%).

An exceptionally high level of awareness was reported in the Ethiopian study by Erko et al.[78], where 98.9% of participants had heard of emergency contraception. However, further assessment in the same study revealed that only 57.7% demonstrated good knowledge of emergency contraception, highlighting the important distinction between awareness and accurate knowledge. This finding suggests that although many women may have heard about emergency contraception, their understanding of its correct use, timing, and mechanism may remain incomplete.

This pattern can also be observed in our study. Although 19.4% of participants had heard of emergency contraception, a substantially smaller proportion demonstrated correct knowledge regarding its use. Among those aware of emergency contraception, only 35.5% correctly identified the appropriate time frame for taking the pill. Similar findings have been reported in other settings. For example, in a study conducted in Karnataka, India, by Pukale et al.[79], 40% of participants were aware of emergency contraception, but only 4% correctly knew the appropriate time window for its use. These findings highlight an important gap between familiarity with the concept of emergency contraception and understanding of its correct use.

This indicates that awareness alone does not necessarily translate into adequate knowledge, and that exposure to the concept of emergency contraception may occur through informal sources such as peers, media, or social networks without comprehensive counselling from healthcare professionals. Consequently, even in populations where awareness appears high, misconceptions or gaps in knowledge may persist.

Table XI : Awareness of emergency contraception among women in different studies

Author	Country	Year	Population	Sample size	% of awareness of emergency contraception
Alkalash et al.[6]	Saudia Arabia	2023	Women of reproductive age	400	27,75%
Yacoubi et al.[34]	Morocco	2019	Post-partum women	111	12,00%
Ouazzani Touhami et al.[23]	Morocco	2022	Post-partum women	132	11,00%
Machado et al.[73]	Brazil	2012	Women aged 15-45	100	11,00%
Sanjayanthan Keerthi et al.[22]	India	2026	Women of reproductive age	400	30,25%
Adewali et al.[76]	Nigeria	2025	Women of reproductive age	129	33,30%
Erko et al.[78]	Ethiopia	2025	Women aged 15-35	372	98,9%
Chaudhary[77]	Nepal	2022	Women of reproductive age	416	34,60%
our study	Morocco	2026	Women of reproductive age	319	19,40%

Previous studies[63,77,78] have shown that knowledge of emergency contraception is significantly associated with educational level and employment status, with women who have attended university or are employed demonstrating higher levels of awareness. In contrast, reliance on informal sources of information such as friends or family has been associated with poorer knowledge. These findings may partly explain the relatively low awareness observed in our study, as a large proportion of our participants had not reached university level and reported obtaining information primarily from friends and family rather than from healthcare professionals.

11. Sources of information:

Across the studies by Alkalash et al.[6] (Saudi Arabia, 2023), Sanjayanthan Keerthi et al.[22] (India, 2026), Ouazzani Touhami et al.[23] (Morocco, 2022), as well as in our own study (Morocco, 2026), informal sources of information, particularly family and friends, and to a lesser extent the internet and social media, consistently emerge as the predominant channels through which women acquire knowledge about contraception.(Figure 45) In contrast, healthcare professionals are less frequently reported as primary sources. This trend is concerning, as informal sources are more likely to convey incomplete or inaccurate information. The predominance of these channels may therefore contribute to persistent misconceptions and insufficient knowledge, as also reflected by the gap observed between awareness and correct understanding in several settings. These findings highlight a missed opportunity for healthcare providers to assume a more central role in delivering accurate, evidence-based contraceptive information.

Furthermore, the quality of information obtained remains a major concern. A review conducted in the United Kingdom by Agrawal et al.[80] in 2021, which evaluated online information on emergency contraception, found that the overall credibility and reliability of online content were low. Also, only 10.6% of websites were certified, highlighting the lack of regulation and standardization of online health information. These findings may explain the rest of our results, where internet and social media represent a substantial source of information, yet may expose women to inaccurate or incomplete knowledge. Combined with the high reliance on family and friends, this suggests that a large proportion of contraceptive information is obtained from sources that are neither medically supervised nor consistently reliable.

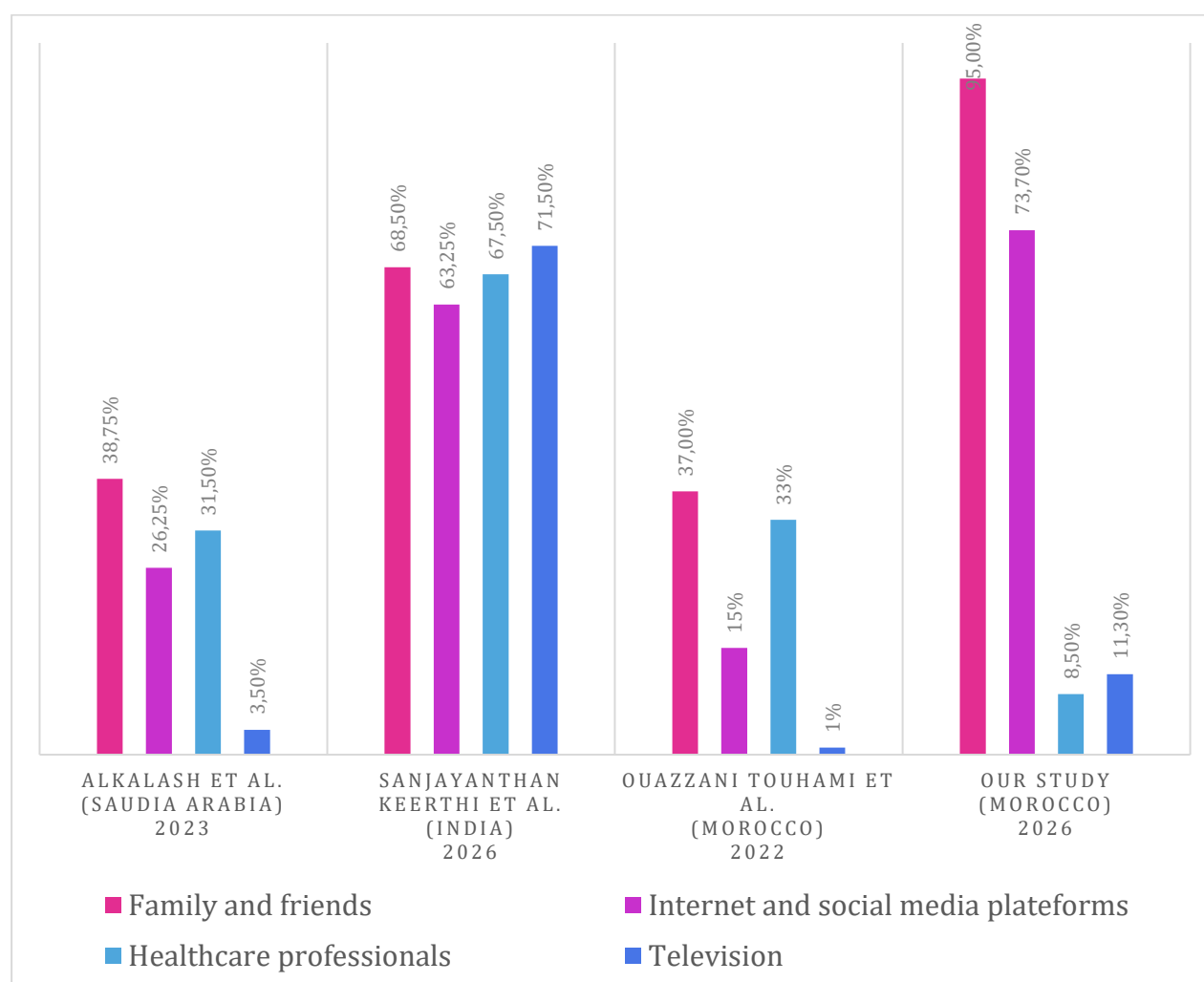


Figure 45: Sources of information on contraception across selected studies. (Alkalash et al.[6], Sanjayanthan Keerthi et al.[22], Ouazzani Touhami et al.[23])

12. Knowledge level:

Beyond the analysis of individual knowledge items, the overall knowledge score in our study provides a more comprehensive assessment of women's understanding of contraception. The low level of knowledge among participants, suggests that awareness of certain contraceptive methods does not necessarily reflect accurate or complete understanding. This finding is consistent with the gaps identified in specific domains in our study, particularly regarding emergency contraception, permanent methods, and misconceptions related to side effects.

Knowledge of contraception has been assessed in numerous studies. However, comparison of results requires caution. There is no standardized or universally validated tool to assess women's knowledge of contraception, and studies rely on different questionnaires and scoring systems. In addition, definitions of knowledge levels vary across studies, with different cut-off values used to classify participants as having "good," "fair," or "poor" knowledge, even when similar terms are used. Study populations also differ in age, educational level, and sociocultural context, all of which influence the findings. These differences should be kept in mind when interpreting and comparing reported levels of knowledge. It is also important to distinguish between awareness of contraceptive methods and true knowledge of their use, as awareness alone does not reflect adequate understanding.

In our study, the overall level of contraceptive knowledge was low, with 79% of participants classified as having poor knowledge and only 21% demonstrating good knowledge. Similar findings have been reported in other settings. For instance, a study conducted in India in 2020 by Goel P et al.[81] showed that only 2.4% of women had good knowledge, while the majority had either fair (58.4%) or poor (39.2%) knowledge.

In another study conducted in Abu Dhabi in 2019 by Taheri S et al.[13], only 23.7% of the women studied possessed good knowledge about contraceptive methods including indications, contraindications, side effects, and benefits.

University students in Malaysia's knowledge was also assessed in a study conducted in 2021 by Kang P.W et al.[8], only 8.4% were considered to have adequate knowledge on methods of contraception, suggesting that even in relatively educated groups, knowledge may remain limited when specific reproductive health education is lacking.

A cross-sectional study was conducted in Egypt in 2022 by Atlam et al.[9] reported a higher proportion of women with good knowledge (34.2%), although the majority still fell within the fair knowledge category (60.2%) and 5.6% of the participants had poor knowledge.

In other settings a higher level of knowledge was reported, for instance, a study conducted in Lahore in 2025 by Taveer et al.[82] among 325 postnatal mothers found that 91,4% of these women had a good level of knowledge, however only 31,4% showed good practice of contraceptive methods.

The survey conducted in Saudia Arabia in 2023 by Alkalash et al.[6] reported a 69,8% rate of good knowledge of contraceptive methods, but the survey was conducted using an online self-administered questionnaire and therefore excluding illiterate females and those not having access to internet connection.

Overall, these findings highlight considerable variability in women's knowledge of contraception across different settings. This variability may be explained by the differences in study populations, access to information, and sociocultural context, suggesting that knowledge is not uniformly distributed and may be influenced by multiple factors.

13. Factors associated with the level of knowledge:

In our study, several factors were found to be significantly associated with the level of contraceptive knowledge, including educational level, prior contraceptive use, exposure to social media, and history of unintended pregnancy. A comparison of factors associated with contraceptive knowledge across different studies, including our own, is presented in (Table XII)

Educational level emerged as an important determinant of knowledge in our population. This finding is consistent with multiple studies. In the study conducted by Little et al.[83] in the United Kingdom, higher educational attainment emerged as a significant predictor, with women who had received further education demonstrating better knowledge. This may be explained by the role of education in improving access to health-related information and enhancing the ability to understand and interpret it. Philipson et al.[84] also listed educational level a major determinant, with women holding a university degree demonstrating significantly higher knowledge scores compared to those without higher education supporting the idea that

education enhances both exposure to information and the capacity to process it effectively.. However, some differences were observed with our results. In the Portuguese study, by Rua et al.[44] education level was not associated with knowledge of the most effective contraceptive methods, but it was associated with knowledge of sexually transmitted infections (STIs) prevention. In contrast, in our study, education level was associated with overall knowledge, suggesting that the role of education may vary depending on the type of knowledge assessed.

In addition to education, experiential factors also played a significant role. In our study, prior use of contraception was associated with higher knowledge levels. This is in agreement with findings from a study conducted among university students in Cameroon by Kongnyuy et al.[63], where prior use of contraception was strongly associated with higher knowledge levels ($p < 0.001$). Similar results were also reported by Little et al.[83] and Philipson et al.[84] who also highlighted that longer duration of use was associated with increased knowledge, suggesting that exposure over time contributes to better understanding, reinforcing the role of cumulative exposure over time. These results suggest that direct experience with contraception, including potential failures or side effects, may act as a catalyst for learning and information retention. Furthermore, longer duration of contraceptive use has also been associated with increased knowledge.

Exposure to social media was also significantly associated with higher levels of knowledge in our study. This finding is supported by a study conducted in India by Saha et al.[85] , exposure to social media was found to be significantly associated with higher levels of knowledge of contraceptive methods ($p < 0.001$) . Females who were exposed to social media demonstrated better understanding compared to those who were not, suggesting that digital platforms play an important role in information dissemination. This association may be explained by the accessibility and interactivity of social media, which allows users to engage with a wide range of health-related content and facilitates peer-to-peer learning in a relatively private environment. However, the study also highlighted that this relationship is influenced by underlying sociodemographic factors, as social media exposure was more common among women who were educated, from wealthier

households, and residing in urban areas. This indicates that while social media can serve as a powerful tool to enhance knowledge, its benefits may be unevenly distributed, potentially reinforcing existing disparities in access to health information.

Both our study and a large multi-country analysis in sub-Saharan Africa study, conducted by Ameyaw et al.[86], found a statistically significant association between unintended pregnancies and the level of contraceptive knowledge. In their study, unintended pregnancies were associated with lower levels of knowledge. However, in our study, the proportion of women with good knowledge was higher among those who had experienced an unintended pregnancy compared to those who had not. This pattern suggests a different distribution of knowledge according to unwanted pregnancies history. Given that both studies are cross-sectional, it remains unclear whether knowledge influences the occurrence of unintended pregnancy or whether the experience of an unintended pregnancy leads to improved knowledge. This suggests that the observed association may reflect both the role of knowledge as a protective factor and the impact of unintended pregnancy as a learning experience.

Table XII : Factors associated with contraceptive knowledge across studies

Authors	Age	Educational level	Place of residence	Social media use	Previous use of contraception	Unwanted pregnancies	Educational intervention	Pregnancy history
Little et al.[83]	P=0.75	P<0.01	–	–	P<0.01	–	P<0.01	–
Rua et al.[44]	P=0.035	P=0.955	P=0.983	–	–	–	–	–
Philipson et al.[84]	P=0.002	p<0.001	–	–	P=0.001	–	–	P=0.05
Obi and Labiran[87]	P=0.275	P=0.726	–	–	–	–	–	–
Kongnyuy et al.[63]	P=0.246	–	–	–	P<0.001	–	–	P=0.675
Saha et al.[85]	P<0.001	P=0.004	P<0.001	P<0.001	–	–	–	–
Ameyaw et al.[86]	–	–	–	–	–	P<0.001	–	–
Our study	P=0.171	P=0.010	P=0.321	P=0.017	P=0.026	P=0.006	–	P=0.792

In contrast to our findings, a study conducted in Nigeria by Obi and Labiran[87] reported no statistically significant association between contraceptive knowledge and sociodemographic variables such as age, educational level, marital status, and employment status. However, this absence of association is likely attributable to methodological and contextual factors rather than a true lack of relationship. Notably, the level of knowledge in that study was very high (92.8%), resulting in a ceiling effect that limits variability and reduces the ability of statistical tests to detect differences between groups. In addition, the study was conducted in a health facility setting, where participants are more likely to have been uniformly exposed to health information, thereby minimizing disparities related to education or socioeconomic status. The relatively small number of participants with poor knowledge limits statistical power. These factors suggest that the lack of statistically significant associations should be interpreted with caution and does not necessarily contradict the role of sociodemographic determinants observed in other studies, including ours.

Although age has been found to be associated with contraceptive knowledge in several studies[44,84,85], we did not find this association in our study. This difference may be explained by the fact that most of our participants were young, with about 75% being under 32 years old. Because of this, there was little variation in age, which may have made it harder to detect a significant relationship.

Moreover, some studies have identified other factors that were not assessed in our study. For example, Little et al.[83] found that educational interventions were associated with better knowledge. This is an important finding indicating that contraceptive knowledge is modifiable and can be improved through targeted strategies. In this context, our results highlight the importance of developing educational interventions to improve contraceptive knowledge among women.

II. Strengths and Limitations of the Study:

1. Strengths:

- The sample size was calculated using standard statistical methods, ensuring a 95% confidence level and a 5% margin of error. This adequate sample size strengthens the statistical power of the study and supports the validity of the observed associations.
- An arabic questionnaire was used, with permission from the original authors and preservation of the original scoring system, ensuring methodological rigor and comparability.
- Data were collected through face-to-face interviews, reducing misinterpretation.
- The study was conducted at a tertiary care center with a heterogeneous patient population.
- To our knowledge, this is the first Moroccan study to classify contraceptive knowledge into good and poor levels among women
- The study also assessed multiple associated factors, including educational level, prior contraceptive use, and sources of information.

2. Limitations:

- The cross-sectional design does not allow for establishing causal relationships, only associations.
- The study was conducted in a single center, which may limit the generalization of the results to all Moroccan women.
- Convenience sampling may introduce selection bias.
- Data were self-reported, which may lead to recall bias. In addition, participants may have provided answers they perceived as socially acceptable in order to appear knowledgeable, introducing social desirability bias.
- Cultural sensitivity surrounding contraception may have influenced responses.
- There is no universal tool for measuring contraceptive knowledge.
- Differences in scoring systems limit comparability across studies.
- As participants were recruited during hospital admission, their clinical condition (fatigue, pain, or stress) may have affected their concentration and the accuracy of their responses.



RECOMMENDATIONS



Based on the findings of our study, which revealed significant gaps in contraceptive knowledge, and considering the significant association between both educational level and social media usage with contraception knowledge level, several recommendations can be suggested at different levels:

I. At the level of the study setting (Hospital department):

1. The use of audiovisual and written materials to improve patients' knowledge. For this matter:
 - a. An educational video was developed in Moroccan Arabic (Darija) explaining contraceptive methods. It may be broadcasted through institutional platforms such as the hospital website, faculty websites, or healthcare professionals' social media accounts, or waiting areas to ensure wide dissemination and improve access to reliable contraceptive information.

The video is accessible via the QR code below.



- b. An educational leaflet (Appendix 4) was designed in simple and accessible language, adapted to the local context, including key information on contraceptive methods, their effectiveness, mode of use, and protection against sexually transmitted infections.

2. Train healthcare providers to systematically identify and address misconceptions related to contraception.
3. Include a brief standardized education session before discharge or after consultation for every patient.
4. Display visual aids in waiting areas to reinforce key messages passively.

II. At the primary health care centers level:

1. Provide systematic contraceptive counselling during antenatal, postnatal, and general consultations.
2. Make educational materials (leaflets and posters in Arabic/Darija) routinely available and used during consultations.
3. Use waiting areas for health education through posters or audiovisual content.
4. Organize group sessions (Contraception master classes)
5. Ensure consistent messages across all healthcare providers within the same center.

III. At the regional level:

1. Plan regular outreach visits to rural areas for on-site education.
2. Set monthly education sessions in healthcare centers.
3. Assign one healthcare provider per center to be responsible for contraceptive counselling.
4. Create regional social media pages managed by healthcare professionals with weekly posts, as social media usage is significantly associated with better knowledge.
5. Provide all centers with the same educational materials (leaflets and posters).

IV. At the national level.

1. Update the National Family Planning Program to include mandatory patient education protocols given the overall low level of knowledge observed, suggesting that current educational efforts are insufficient
2. Broadcast culturally adapted educational content on national television channels, using simple Arabic/Darija, to improve contraceptive knowledge
3. public health strategies should promote actual knowledge of contraceptive methods beyond basic recognition, emphasizing correct use, effectiveness, and limitations of each method
4. Develop and distribute a standardized national leaflet on contraception in Arabic/Darija
5. Launch an official national social media platform for reproductive health education as social media use was significantly associated with better knowledge.
6. Conduct regular national surveys to assess and monitor women's knowledge

These recommendations aim to transform the study findings into concrete actions to enhance contraceptive knowledge and promote informed reproductive health decision-making.



CONCLUSION



This study, conducted among women attending Mohammed VI University Hospital, provided a detailed assessment of their level of knowledge regarding contraception. Despite the central role of contraception in reproductive health, the findings indicate that knowledge remains limited, with important gaps identified in areas such as method effectiveness, side effects, and protection against sexually transmitted infections.

Statistical analyses identified significant associations between contraceptive knowledge and several factors, particularly educational level, prior use of contraception, and social media usage. Women with higher educational attainment, previous contraceptive experience, and exposure to social media demonstrated better knowledge levels. In addition, a significant association was observed between contraceptive knowledge and the occurrence of unintended pregnancies, highlighting the potential impact of insufficient knowledge on reproductive outcomes.

However, these knowledge gaps should not be interpreted as a lack of interest or engagement. On the contrary, the results suggest that women are receptive to information and express a need for clearer, more accessible, and better-adapted educational content.

In this context, the current findings highlight the importance of adapting educational strategies to the characteristics and expectations of the target population. The use of simple language, culturally adapted content, and visual support, as well as the integration of digital tools, represents a valuable opportunity to improve the transmission and retention of information related to contraception.

In this perspective, this study not only identifies existing gaps but also suggests practical responses through the development of an educational leaflet and a video in Moroccan Arabic (Darija), designed to enhance understanding and support patient education in clinical settings.

Ultimately, improving contraceptive knowledge constitutes a broader public health priority. Strengthening educational approaches is essential to promote informed decision-making, reduce misconceptions, and support reproductive autonomy.



APPENDICES



Appendix 1: Original validated questionnaire in Arabic provided by the Author

المعرفة والمواقف وممارسة وسائل منع الحمل بين الإناث في سن الإنجاب في

محافظة القنفذة، المملكة العربية السعودية [6]

د. صفا حمدي القلش • شروق محمد العيسى • أمل عبد الله الرزقي • أمل عبد الله العامري • آمنة الكناني • حاتم عبد الله الرزقي • رهنف القوزي

البيانات العامة:

(1) العمر: -----

(2) الجنسية:

- سعودية
- غير سعودية

(3) مكان الإقامة: -----

(4) ما المستوى التعليمي لك؟

- يقرأ ويكتب
- المرحلة الابتدائية
- المرحلة المتوسطة
- المرحلة الثانوية
- المرحلة الجامعية
- دراسات عليا

(5) ما هي وظيفتك؟

- ربة منزل
- طالبة
- موظفة

(6) ما هو الدخل الشهري للعائلة؟

- اقل من ٥٠٠٠ ريال
- ٥٠٠٠ - ١٠٠٠٠ ريال
- اكثر من ١٠٠٠٠ ريال

(7) ماهي الحالة الاجتماعية؟

- متزوجة
- غير متزوجة
- مطلقة او ارملة

(8) ما مدة الزواج؟

- سنه او اقل
- اكثر من سنة - ١٠ سنوات
- اكثر من ١٠ سنوات

(9) ما عدد مرات الحمل؟

- لا يوجد
- ١ - ٤

• اكثر من ٤ مرات

(10) ما عدد الأطفال الاحياء؟

- لا يوجد
- ١ - ٤

• اكثر من ٤ أطفال

11) كم المسافة بين الأطفال؟

- أقل من سنتين
- من 2 - 3 سنوات
- من 4 - 5 سنوات
- أكثر من 5 سنوات

المعرفة عن أنواع وسائل منع الحمل:

12) هل تعرفين الهدف من استخدام موانع الحمل؟

- نعم
- لا

13) ما هي وسائل منع الحمل التي تعرفينها؟

- حبوب منع الحمل
- اللولب
- الواقي الذكري
- العزل
- ابر منع الحمل
- تتبع التبويض (النظم)
- الرضاعة
- الواقي الانثوي
- مبيد النطاف
- العازل الواقي
- شريحة منع الحمل
- درجة حرارة الجسم
- لصقات منع الحمل
- حلقة مهبلية
- التغيير في مخاط عنق الرحم
- قطع القناة الدافقة عند الزوج
- ربط الأنابيب
- أخرى (مع ذكرها)
- لا اعرف

14) ما هي وسيلة منع الحمل الأكثر كفاءة؟

- حبوب منع الحمل
- اللولب
- الواقي الذكري او الانثوي
- حلقة في عنق الرحم
- مبيد النطاف
- اللصقات الهرمونية
- أخرى (مع ذكرها)
- لا اعرف

15) ما هي وسائل الحمل التي تحمي من العدوى في الجهاز التناسلي؟

- حبوب منع الحمل
- اللولب
- الواقي الذكري او اللاتوي
- حلقة في عنق الرحم
- مبيد النطف
- اللصقات الهرمونية
- أخرى (مع ذكرها)
- لا اعرف

16) ما هي موانع الحمل الدائمة؟

- حبوب منع الحمل
- ربط الأنابيب
- اللولب
- الحقن الهرمونية
- قطع القناة الدافقة عند الزوج
- اللصقات الهرمونية
- غير ذلك (اذكر)
- لا اعرف

17) ما هي الاعراض الجانبية لوسائل منع الحمل؟

- التهابات مهبلية
- تغير المزاج
- زيادة عدد أيام الحيض او كمية دم الحيض
- النزيف الرحمي بين الدورات
- حبوب الشباب
- زيادة الوزن
- الحمل
- ألم الدورة الشهرية
- نقص الرغبة الجنسية
- اجهاض
- عقم او تأخر القدرة على الانجاب
- توقف الدورة الشهرية
- حمل خارج الرحم
- غير ذلك (اذكر)
- لا اعرف

18) هل تعرفين وسائل الحمل الطارئة؟

- نعم
- لا

19) ماهي مصادر معرفتك عن وسائل تنظيم الاسرة؟

- النت وبرامج التواصل الاجتماعي
- الاهل والأصدقاء
- التلفزيون
- مقدمي الخدمات الصحية

- غير ذلك (اذكر)

الاتجاهات والمواقف لوسائل منع الحمل:

(20) ما رأيك بتأثير وسائل منع الحمل على مستوى الأسرة؟

- جيد
- سيئ

(21) ما رأيك بتأثير وسائل منع الحمل في المجتمع؟

- جيد
- سيئ

• لا يوجد تأثير

(22) هل يجب ان يعلم الزوج باستخدامك لموانع الحمل؟

- نعم
- لا

(23) ما هي معتقدات الزوج فيما يتعلق بالمباعدة بين الولادات؟

- غير موافق بشدة
- لا مانع
- يشجع ذلك

(24) ما هو موقفك من موانع الحمل؟

- منع الحمل مفيد
- منع الحمل يقلل من ممارسة الجنس
- يمكن ان ينزلق الواقي الذكري اثناء الجماع ويسبب الحمل
- وسائل منع الحمل افضل من الاجهاض
- سوف تستخدم وسائل منع الحمل في المستقبل

(25) مناقشة الزوج حول تنظيم الأسرة مهم

- موافق
- غير موافق

(26) اهتم بمعرفة تنظيم الأسرة

- موافق
- غير موافق

(27) استخدام تنظيم الأسرة مهم لصحة النساء

- موافق
- غير موافق

(28) استخدام تنظيم الأسرة مهم لثبات العائلة

- موافق
- غير موافق

(29) حجم الأسرة الكبير يؤثر على نمو الأسرة

- موافق
- غير موافق

(30) اهتم باستخدام وسائل تنظيم الأسرة في المستقبل

- موافق
- غير موافق

(31) تقديم المشورة للنساء الأخريات من أجل تنظيم الأسرة هو أمر جيد مناسب

- موافق

- غير موافق
- 32) إنجاب العديد من الأطفال هو أحد أصول الأسرة
- موافق
- غير موافق
- 33) الأسرة التي لديها العديد من الأبناء هي أفضل من الأسرة التي لديها العديد من الإناث
- موافق
- غير موافق
- 34) من الخطأ استخدام تنظيم الأسرة
- موافق
- غير موافق
- ممارسات استخدام موانع الحمل:

- 35) هل استخدمت موانع الحمل من قبل؟
- نعم
- لا
- 36) ما هو سبب استخدامك لموانع الحمل؟
- اكتمال الأسرة
- التباعد بين الولادات
- تحسين الصحة
- اسباب اقتصادية
- 37) ما هو سبب عدم استخدام موانع الحمل؟
- نقص المعرفة
- متزوجة حديثاً
- اريد المزيد من الأطفال
- معارضة الزوج
- الخوف من الآثار الجانبية
- 38) اذا كنتِ استخدمي موانع الحمل من قبل ماهي مدة الاستخدام بالسنوات؟
- لا أتذكر
- سنة أو أقل
- ٢-٥ سنوات
- أكثر من ٥ سنوات
- 39) في حالة استخدام وسيلة منع الحمل اذكرى نوعها:
- حبوب منع الحمل
- اللولب
- الواقي الذكري
- العزل
- ابر منع الحمل
- تتبع التبويض(النظم)
- الرضاعة
- الواقي الانثوي
- مبيد النطاف والعازل الواقي
- شريحة منع الحمل
- درجة حرارة الجسم
- لصقات منع الحمل
- حلقة مهبلية
- الحاجز لمنع الحمل
- أخرى

40) ما هي الاعراض الجانبية التي تعرضت لها مع استخدام وسائل منع الحمل؟

- التهابات مهبلية
- تغير المزاج
- زيادة عدد أيام الحيض
- حبوب الشباب
- زيادة الوزن
- الحمل
- زيادة كمية دم الحيض
- ألم الدورة الشهرية
- نقص الرغبة الجنسية
- اجهاض
- عقم أو تأخر القدرة على الانجاب
- توقف الدورة الشهرية
- حمل خارج الرحم
- غير ذلك (اذكر)
- لا اعرف

41) هل تستخدمين وسائل منع الحمل بوصفة طبية ؟

- نعم
- لا

Appendix 2 : Original validated questionnaire in Arabic provided by the Author

Knowledge on, Attitude Toward, and Practice of Contraceptive Methods Among Females of Reproductive Age in Al-Qunfudah Governorate, Saudi Arabia [6]

Safa H Alkalash , Shroog M Alessi , Amal A Alrizqi , Amal A Alamri , Amnah Al Kenani , Hatim A Alrizqi , Rahaf Alqozi

Demographic data:

1. What is your age?

2. What is your nationality?

- Saudi
- Non-Saudi

3. What is your place of residence?

4. What is your educational level?

- Reads and writes
- Primary stage
- Intermediate stage
- High school stage
- University level • Postgraduate Studies

5. What is your job?

- Housewife
- Student
- Employee

6. What is the family's monthly income?

- Less than 5000 riyals
- 5,000 – 10,000 riyals
- More than 10,000 riyals

7. What is your marital status?

- Married
- Single
- Divorced or widowed

8. How long was the marriage?

- One year or less
- More than 1 year – 10 years
- More than 10 years

9. How many times have you been pregnant?

- None

- 1–4

- More than 4 times

10. What is the number of living children?

- None

- 1–4

- More than 4 children

11. How far apart are the children?

- Less than two years

- From 2–3 years

- From 4–5 years

- More than 5 years

Knowledge about types of contraceptives:

12. Do you know the purpose of using contraceptives?

- Yes

- No

13. What contraceptive methods do you know?

- Birth control pills

- The IUD

- Condom

- Withdrawal

- Contraceptive injections

- Tracking ovulation (the rhythm method)

- Breastfeeding

- Female condom

- Spermicide

- Contraceptive implant

- Body temperature

- Contraceptive patches

- Vaginal ring

- Change in cervical mucus

- Ovarian ligation

- Vasectomy for the husband

- Other (please specify)
- I don't know

14. What is the most effective contraceptive method?

- Birth control pills
- The IUD
- Male or female condom
- Cervical ring
- Spermicide
- Hormonal patches
- Other (please specify)
- I don't know

15. What are the contraceptive methods that protect against infections in the reproductive system?

- Birth control pills
- The IUD
- Male or female condom
- Cervical ring
- Spermicide
- Hormonal patches
- Other (please specify)
- I don't know

16. What are permanent contraceptives?

- Birth control pills
- Ovarian ligation
- The IUD
- Hormonal injections
- Vasectomy for the husband
- Hormonal patches
- Other (please specify)
- I don't know

17. What are the side effects of contraceptives?

- Vaginal infections
- Mood swings

- Increased number of menstrual days
- Acne
- Weight gain
- Pregnancy
- Increased menstrual blood flow
- Pain during menstruation
- Loss of sexual desire
- Abortion
- Infertility or delayed ability to conceive
- Menstrual cycle cessation
- Ectopic pregnancy
- Other (please specify)
- I don't know

18. Do you know about emergency contraception methods?

- Yes
- No

19. What are your sources of knowledge about family planning methods?

- The internet and social media platforms
- Family and friends
- Television
- Healthcare providers
- Other (please specify)

Attitudes toward contraceptives:

20. What do you think about the impact of contraceptives on family dynamics?

- Good
- Bad

21. What do you think about the impact of contraceptives on society?

- Good
- Bad
- There is no impact

22. Should the husband know about your use of contraceptives?

- Yes

- No

23. What are the husband's beliefs regarding spacing between births?

- Strongly disagree

- No objection

- That encourages

24. What is your stance on contraception?

- Contraception is beneficial

- Birth control reduces sexual activity

The condom can slip during intercourse and cause pregnancy.

- Contraceptives are better than abortion.

- You will use contraceptives in the future.

25. Discussing family planning with your spouse is important.

- Agree

- Disagree

26. I am interested in learning about family planning.

- Agree

- Disagree

27. The use of family planning is important for women's health.

- Agree

- Disagree

28. The use of family planning is important for family stability.

- Agree

- Disagree

29. The large family size affects family growth.

- Agree

- Disagree

30. I am interested in using family planning methods in the future.

- Agree

- Disagree

31. Advising other women on family planning is a good and appropriate thing.

- Agree

- Disagree

32. Having many children is one of the family's assets.

- Agree
- Disagree

33. The family with many sons is better than the family with many daughters.

- Agree
- Disagree

34. It is wrong to use family planning.

- Agree
- Disagree

Practices of contraceptive use:

35. Have you used contraceptives before?

- Yes
- No

36. What is the reason for your use of contraceptives?

- Family completion
- Spacing between births
- Improving health
- Economic reasons

37. What is the reason for not using contraceptives?

- Lack of knowledge
- Recently married

I want more children.

- Husband's opposition
- Fear of side effects

38. If you have used contraceptives before, how long did you use them in years?

- I don't remember
- One year or less
- 2–5 years
- More than 5 years

39. In case of using a contraceptive method, please specify the type

- Birth control pills
- The IUD
- Condom
- Withdrawal
- Contraceptive injections
- Tracking ovulation (the rhythm method)
- Breastfeeding
- Female condom
- Spermicide and barrier method
- Contraceptive implant
- Body temperature
- Contraceptive patches
- Vaginal ring
- Contraceptive barrier
- Other

40. What side effects did you experience while using contraceptives?

- Vaginal infections
- Mood swings
- Increased number of menstrual days
- Acne
- Weight gain
- Pregnancy
- Increased menstrual blood flow
- Pain during menstruation
- Loss of sexual desire
- Abortion
- Infertility or delayed ability to conceive
- Menstrual cycle cessation
- Ectopic pregnancy
- Other (please specify)
- I don't know

41. Do you use prescription contraceptives?

- Yes
- No

Appendix 3: The complete questionnaire used in this study

البيانات العامة:

(1) العمر: -----

(2) الجنسية:

- مغربية
- غير مغربية.....

(3) مكان الإقامة:

- حضري
- ريفي

(4) ما المستوى التعليمي لك؟

- يقرأ ويكتب
- المرحلة الابتدائية
- المرحلة الإعدادية
- المرحلة الثانوية
- المرحلة الجامعية
- أمية

(5) ما هو الدخل الشهري للعائلة؟

- أقل من 3000 Dhs
- 3000 Dhs – 10000 Dhs
- أكثر من 10000 Dhs

(6) ما هي وظيفتك؟

- ربة منزل
- طالبة
- موظفة

(7) ماهي الحالة الاجتماعية؟

- متزوجة
- غير متزوجة
- مطلقة
- أرملة

(8) الوصول إلى الخدمات الأساسية (الكهرباء، الماء، الإنترنت)

- نعم
- لا

(9) التغطية الصحية

- نعم

• لا

10) استخدام وسائل التواصل الاجتماعي

• نعم
• لا

11) إمكانية الوصول إلى مرافق الرعاية الصحية القريبة

• نعم
• لا

12) ما مدة الزواج؟.....

13) ما عدد مرات الحمل؟.....

14) العمر عند أول ولادة.....

15) ما عدد الأطفال الأحياء؟.....

16) عدد حالات الحمل غير المرغوب فيها.....

17) كم المسافة بين الأطفال؟.....

المعرفة عن أنواع وسائل منع الحمل:

18) هل تعرفين الهدف من استخدام موانع الحمل؟

• نعم
• لا

19) ما هي وسائل منع الحمل التي تعرفينها؟

- حبوب منع الحمل
- اللولب
- الواقي الذكري
- العزل
- ابر منع الحمل
- تتبّع التبويض(النظم)
- الرضاعة
- الواقي الانثوي
- مبيد النطاف
- شريحة منع الحمل
- درجة حرارة الجسم
- لصقات منع الحمل

- حلقة مهبلية
- التغير في مخاط عنق الرحم
- قطع القناة المنوية (استئصال الأسهر)
- ربط الأنابيب
- أخرى (مع ذكرها)
- لا اعرف

(20) ما هي وسيلة منع الحمل الأكثر كفاءة؟

- حبوب منع الحمل
- اللولب
- الواقي الذكري او الانثوي
- حلقة مهبلية
- مبيد النطاف
- اللصقات الهرمونية
- أخرى (مع ذكرها)
- لا اعرف

(21) ما هي وسائل الحمل التي تحمي من العدوى في الجهاز التناسلي؟

- حبوب منع الحمل
- اللولب
- الواقي الذكري او الانثوي
- مبيد النطاف
- حلقة مهبلية
- اللصقات الهرمونية
- أخرى (مع ذكرها)
- لا اعرف

(22) ما هي موانع الحمل الدائمة؟

- حبوب منع الحمل
- ربط المبايض
- اللولب
- الحقن الهرمونية
- قطع القناة الدافقة عند الزوج
- اللصقات الهرمونية
- غير ذلك (اذكر)
- لا اعرف

(23) ما هي الاعراض الجانبية لوسائل منع الحمل؟

- التهابات مهبلية
- تغير المزاج
- زيادة عدد أيام الحيض
- حبوب الشباب
- زيادة الوزن
- الحمل
- زيادة كمية دم الحيض
- الم الدورة الشهرية

- نقص الرغبة الجنسية
- اجهاض
- عقم او تأخر القدرة على الانجاب
- توقف الدورة الشهرية
- حمل خارج الرحم
- غير ذلك (اذكر)
- لا اعرف

24) هل تعرفين وسائل الحمل الطارئة؟

- نعم
- لا

25) ماهي مصادر معرفتك عن وسائل تنظيم الاسرة؟

- النت وبرامج التواصل الاجتماعي
- الاهل والأصدقاء
- التلفزيون
- مقدمي الخدمات الصحية
- غير ذلك (اذكر)

الاتجاهات والمواقف لوسائل منع الحمل:

26) ما رأيك بتأثير وسائل منع الحمل على مستوى الاسرة؟

- جيد
- سيئ

27) ما رأيك بتأثير وسائل منع الحمل في المجتمع؟

- جيد
- سيئ
- لا يوجد تأثير

28) هل يجب ان يعلم الزوج باستخدامك لموانع الحمل؟

- نعم
- لا

29) ما هي معتقدات الزوج فيما يتعلق بالمباعدة بين الولادات؟

- غير موافق بشدة
- لا يهتم
- يشجع ذلك

(30) ما هو موقفك من موانع الحمل؟

- منع الحمل مفيد
- منع الحمل يقلل من ممارسة الجنس
- يمكن ان ينزلق الواقي الذكري اثناء الجماع ويسبب الحمل
- وسائل منع الحمل افضل من الإجهاض
- سوف تستخدم وسائل منع الحمل في المستقبل

(31) مناقشة الزوج حول تنظيم الاسرة مهم

- موافق
- غير موافق

(32) اهتم بمعرفة تنظيم الاسرة

- موافق
- غير موافق

(33) استخدام تنظيم الاسرة مهم لصحة النساء

- موافق
- غير موافق

(34) استخدام تنظيم الاسرة مهم لثبات العائلة

- موافق
- غير موافق

(35) حجم الاسرة الكبير يؤثر على نمو الاسرة

- موافق
- غير موافق

(36) تقديم المشورة للنساء الأخريات من أجل تنظيم الأسرة هو أمر جيد مناسب

- موافق
- غير موافق

(37) الأسرة التي لديها العديد من الأبناء هي أفضل من الأسرة التي لديها العديد من الإناث

- موافق
- غير موافق

(38) إنجاب العديد من الأطفال هو أحد أصول الأسرة

- موافق
- غير موافق

(39) من الخطأ استخدام تنظيم الاسرة

- موافق
- غير موافق

40) اهتم باستخدام وسائل تنظيم الاسرة في المستقبل

- موافق
- غير موافق

41) هل استخدمت موانع الحمل من قبل؟

- نعم
- لا

42) ما هو سبب استخدامك لموانع الحمل؟

- اكتمال الاسرة
- التباعد بين الولادات
- تحسين الصحة
- اسباب اقتصادية

43) ما هو سبب عدم استخدام موانع الحمل؟

- نقص المعرفة
- متزوجة حديثاً
- اريد المزيد من الأطفال
- معارضة الزوج
- الخوف من الآثار الجانبية

44) اذا كنت استخدمي موانع الحمل من قبل ماهي مدة الاستخدام بالسنوات؟

- لا أتذكر
- سنة او اقل
- 2-5 سنوات
- اكثر من 5 سنوات
-

45) في حالة استخدام وسيلة منع الحمل اذكرى نوعها:

- حبوب منع الحمل
- اللولب
- الواقي الذكري
- العزل
- ابر منع الحمل
- تتبع التبويض(النظم)
- الرضاعة
- الواقي الانثوي
- مبيد النطاف
- شريحة منع الحمل
- درجة حرارة الجسم
- لصقات منع الحمل
- حلقة مهبلية
- الحاجز لمنع الحمل
- أخرى

46) ما هي الاعراض الجانبية التي تعرضت لها مع استخدام وسائل منع الحمل؟

- التهابات مهبلية
- تغير المزاج
- زيادة عدد أيام الحيض
- حيوب الشباب
- زيادة الوزن
- الحمل
- زيادة كمية دم الحيض
- ألم الدورة الشهرية
- نقص الرغبة الجنسية
- اجهاض
- عقم او تأخر القدرة على الانجاب
- توقف الدورة الشهرية
- حمل خارج الرحم
- غير ذلك (اذكر)
- لا اعرف

(47) هل تستخدمين وسائل منع الحمل بوصفة طبية ؟

- نعم
- لا

(48) إذا مارست المرأة علاقة جنسية بدون حماية، كم من الوقت بعد ذلك يمكنها تناول وسيلة منع الحمل الطارئة لتكون فعالة؟

- خلال 72 ساعة
- لا أعرف

(49) إذا نسيت المرأة تناول حبة منع الحمل، ماذا يجب أن تفعل؟

- تتخطاها وتكمل الحبة التالية كالمعتاد
- تتناول الحبة المنسية في أسرع وقت وتواصل تناول الحبوب كالمعتاد
- تتوقف عن تناول الحبوب لهذا الشهر
- لا أعرف

(50) استخدام حيوب منع الحمل يؤثر على خصوبة المرأة بشكل دائم.

- صحيح
- خطأ
- لا أعرف

(51) يمكن للمرأة المرضعة استخدام أي نوع من وسائل منع الحمل دون مشاكل للرضيع.

- صحيح
- خطأ
- لا أعرف

(52) استخدام وسائل منع الحمل الهرمونية يؤدي دائماً إلى زيادة الوزن بشكل كبير.

- صحيح

- خطأ
- لا أعرف

53) استخدام حبوب منع الحمل أو اللولب أو أي وسيلة أخرى بشكل غير منتظم لا يقلل من فعاليتها في منع الحمل.

- صحيح
- خطأ
- لا أعرف

54) كم من الوقت يحمي اللولب الرحمي المرأة من الحمل؟

- سنة واحدة
- 3-5 سنوات حسب النوع
- دائماً بدون انتهاء
- لا أعرف

55) استخدام أكثر من وسيلة منع الحمل في نفس الوقت يزيد من الفعالية بشكل كبير.

- صحيح
- خطأ
- لا أعرف

56) من أين يمكن للمرأة الحصول على وسيلة منع الحمل المفضلة لديها؟

- الطبيب أو المركز الصحي
- الصيدلية
- الإنترنت أو وسائل التواصل الاجتماعي
- لا أعرف

57) ما هي الصعوبات أو التحديات التي واجهتها أو قد تواجهينها عند استخدام وسائل منع الحمل؟ يرجى ذكر أي مشاكل أو مخاوف قد تساعدنا على تحسين المعلومات والدعم المقدم.

.....

.....

58) هل لديك أي اقتراحات أو أفكار حول كيفية تحسين التوعية بوسائل منع الحمل للنساء في مجتمعنا؟ يرجى ذكر ما تريده مهماً أو ما كان سيساعدك شخصياً.

.....

.....

Appendix 4: Educational leaflet created

تعرفي على وسائل منع الحمل

الحاجز المهيلي

هو واحد الوسيلة مدوّرة بحال القبة، مصنوعة من سيليكون رقيق ومرت كينط داخل المهبل قبل العلاقة، وكغطى على الرحم بأش يمع الحيوانات المنوية من الدخول للرحم. كينط من طرف المرأة نفسها. كينستعمل غير وقت العلاقة ومن بعد حاصو يبقى فالبلصة دبالو على الأقل 6 ساعات من بعد آخر علاقة **الفعالية:** حوالي 86% إلا تستعمل بشكل صحيح.

اللولب (النحاسي أو الهرموني)

هو واحد الجهاز صغير كينط داخل الرحم من طرف مهني الصحة، وكيمنع الحمل. كاتن نوع فيه النحاس، ونوع فيه هرمونات. **الفعالية:** أكثر من 99% إلا تستعملات بشكل صحيح **المدة:** كيدم من 5 حتى 10 سنين، ويمكن تحديده ف أي وقت إلا يغني. فالبدية ممكن يكون نزيف غير منتظم بقدر يحلى الدورة أكثر، أطول، أو فيها ألم أكثر.

حبوب منع الحمل

هي حبوب فيها هرمونات كتخاخذ عن طريق الفم. **الفعالية:** أكثر من 99% إلا تستعملات مزيان. كتخاخذ كل نهار ف نفس الوقت كتعاون تنقص النزيف دبال الدورة وتخفف الألم وحتى ممكن تعاون مع الأعراض اللي كتيجو قبل الدورة. إلا نساء الحبوب أو كان القيء أو الإسهال القوي، ممكن تنقص الفعالية دبالها.

الواقي الذكري والأنثوي

الواقي الأنثوي: كينط داخل المهبل، وكاتن حلقة كتكون من برا على مستوى الفرج. كيجو غلاف رقيق كينط على العضو الذكري. **الفعالية:** حوالي 95% للأنثوي و 98% للذكري إلا تستعملو بشكل صحيح. أحسن وسيلة للحماية من الأمراض المنقولة جنسياً. كيتبدل فكل علاقة.

الحلقة المهبلية

هي واحد الحلقة صغيرة ومرتة من البلاستيك، كينط داخل المهبل وكينط هرمونات كيساعدو بمنع الحمل. **الفعالية:** أكثر من 99% إلا تستعملات بشكل صحيح. **المدة:** كينط الحلقة وكينط فالبلصة دبالها لمدة 3 أسابيع. حاصك تكوني مرتانة ف إرحاها وتحديدها بوجدك.

الشريحة الهرمونية

هي وسيلة صغيرة ومرتة كينط تحت الجلد دبال الذراع من طرف الطبيب. وكيساعدو بمنع الحمل. كتينط هرمونات بشكل تدريجي. **الفعالية:** أكثر من 99% إلا تستعملات بشكل صحيح. **المدة:** كتدوم حتى 3 سنين، ويمكن تحيد ف أي وقت إلا يغني ممكن يوقع نزيف غير منتظم فالأشهر الأولى، وقد يبقى أثر صغير فالبلصة لي كاتت فيها.

الوصقة

هي وسيلة كتلصق على الجلد، وكينط هرمونات كيساعدو بمنع الحمل. كل أسبوع لمدة 3 أسابيع، كتلصقي لصقة جديدة وفالأسبوع الرابع ما كتلصقي حتى لصقة، وكينط نزيف بحال الدورة. **الفعالية:** إلا تستعملات بشكل صحيح، كتوصل حتى 99.7%. اللصقة ممكن تحيد بوجدك بلا ما تنتهي.

الحقنة دبال منع الحمل

هي حقنة فيها هرمون، كتعطى فالعضلة وكعاون تمنع الحمل. **الفعالية:** إلا تستعملات مزيان، كتكون أكثر من 99%. **المدة:** كتدوم لمدة 3 شهور ما يكتش تحيد من الجسم، يعني إلا كاتو شي آثار جانبية، ممكن يقاو حتى تسالي المدة دبالها وشوية من بعد.

وسائل منع الحمل الدائمة (التعقيم)

(ربط قنوات فالوب / قطع القناة المنوية)
كتيم قطع أو سدّ القنوات عند المرأة (قنوات فالوب) أو القنوات اللي كيدورز منها الحيوانات المنوية عند الرجل. هاد الطريقة دامة، وما فيهاش آثار جانبية خطيرة. خاص الواحد ما يختارهاش إلا ما كاتش متأكد 100% أنه ما يغبش يكون عندو أطفال فالمتقبل.

تعرفي على وسائل منع الحمل

طريقة منع الحمل	الفعالية	كيجي من الأمراض المنقولة جنسياً	كيندار غير عند مهني صحي	لا هرمونات	كينستعمل غير فذلك الوقت دبال العلاقة	كينستعمل
حبوب منع الحمل	99.7%					كل نهار
اللولب النحاسي	99.4%		✓			كل 5 إلى 10 سنوات
اللولب الهرموني	99.8%		✓			كل 5 سنوات
حلقة منع الحمل	99.7%		✓			كل 3 شهور
الشريحة	99.9%		✓			كل 3 سنين
الحلقة المهبلية	99.7%		✓			مرة فالشهر
الوصقة الهرمونية	99.7%					مرة فالسببماتة
الواقي الذكري	98%	✓		✓	✓	عند كل علاقة
الواقي الأنثوي	95%	✓		✓	✓	عند كل علاقة
الحاجز المهيلي	94%			✓	✓	عند كل علاقة



ABSTRACT



Abstract

Background:

Family planning is a fundamental component of reproductive health and plays a key role in reducing maternal and neonatal morbidity and mortality. Despite the availability of contraceptive methods, insufficient knowledge remains a major barrier to their effective use, contributing to unintended pregnancies and adverse health outcomes.

Objective:

This study aimed to assess the level of knowledge regarding contraceptive methods among women attending the Obstetrics and Gynecology Department of Mohammed VI University Hospital in Marrakesh. It also aimed to identify factors associated with contraceptive knowledge.

Methods:

A descriptive and analytical cross-sectional study was conducted from December 2025 to February 2026, including 319 women admitted to the Obstetrics and Gynecology Department of Mohammed VI University Hospital in Marrakesh. Data were collected through face-to-face interviews using a validated Arabic questionnaire assessing knowledge, attitudes, and practices related to contraception. Knowledge was categorized as poor or good based on a predefined scoring system. Statistical analysis was performed using SPSS, with a significance level set at $p < 0.05$.

Results:

Although nearly all participants were aware of the concept of contraception (99.69%), the majority demonstrated poor overall knowledge (79.0%). Significant gaps were identified, particularly regarding the most effective contraceptive method, protection against sexually transmitted infections, and emergency contraception. Only 6.3% correctly identified the most effective method, and 14.4% recognized condoms as protective against sexually transmitted infections. Emergency contraception awareness was low (19.4%).

The main sources of information were informal, including family and friends (95.0%) and social media (73.7%), while healthcare providers accounted for only 8.5%. Statistically significant factors associated with better knowledge included higher educational level ($p = 0.010$), social media use ($p = 0.010$), previous contraceptive use ($p = 0.023$), and a history of unintended pregnancy ($p = 0.004$).

Conclusion:

Significant knowledge gaps persist among women in this setting, particularly regarding effectiveness and correct use of methods. These findings highlight the need for structured, patient-centered educational interventions. Strengthening the role of healthcare providers in contraceptive counselling and developing accessible educational tools, including leaflets and digital media, may contribute to improving women's knowledge and supporting informed reproductive health decisions.

Résumé

Contexte :

La planification familiale constitue un élément fondamental de la santé reproductive et joue un rôle essentiel dans la réduction de la morbidité et de la mortalité maternelles et néonatales. Malgré la disponibilité des méthodes contraceptives, l'insuffisance des connaissances demeure un obstacle majeur à leur utilisation efficace, contribuant aux grossesses non désirées et à des problèmes de santé défavorables.

Objectif :

Cette étude visait à évaluer le niveau de connaissance des méthodes contraceptives chez les femmes hospitalisées au service de gynécologie-obstétrique du Centre Hospitalier Universitaire Mohammed VI de Marrakech. Elle visait également à identifier les facteurs associés au niveau de connaissance.

Méthodes :

Une étude transversale descriptive et analytique a été menée entre décembre 2025 et février 2026, incluant 319 femmes admises au service de gynécologie-obstétrique du Centre Hospitalier Universitaire Mohammed VI de Marrakech. Les données ont été recueillies par entretiens en face à face à l'aide d'un questionnaire validé en arabe évaluant les connaissances, attitudes et pratiques en matière de contraception. Le niveau de connaissance a été classé en bon ou faible selon un score prédéfini. L'analyse statistique a été réalisée à l'aide du logiciel SPSS, avec un seuil de significativité fixé à $p < 0,05$.

Résultats :

Bien que presque toutes les participantes aient entendu parler de la contraception (99,69 %), la majorité présentait un niveau global de connaissance faible (79,0 %). Des lacunes importantes ont été identifiées, notamment concernant la méthode contraceptive la plus efficace, la protection contre les infections sexuellement transmissibles et la contraception d'urgence.

Seules 6,3 % des participantes ont correctement identifié la méthode la plus efficace, et 14,4 % ont reconnu le préservatif comme moyen de protection contre les infections sexuellement transmissibles. La connaissance de la contraception d'urgence était faible (19,4%). Les principales sources d'information étaient informelles, notamment la famille et les amis (95.0 %) ainsi que les réseaux sociaux (73.7 %), tandis que les professionnels de santé ne représentaient que 8.5%.

Les facteurs significativement associés à un meilleur niveau de connaissance comprenaient un niveau d'éducation plus élevé ($p = 0,010$), l'utilisation des réseaux sociaux ($p = 0,010$), l'utilisation antérieure de méthodes contraceptives ($p = 0,023$) et les antécédents de grossesse non désirée ($p = 0,004$).

Conclusion :

D'importantes lacunes en matière de connaissances persistent chez les femmes de cette population, notamment concernant l'efficacité et l'utilisation correcte des méthodes. Ces résultats soulignent la nécessité de mettre en place des interventions éducatives structurées et centrées sur les patientes. Le renforcement du rôle des professionnels de santé dans le conseil contraceptif et le développement d'outils éducatifs accessibles, tels que des brochures et des supports numériques, pourraient améliorer les connaissances des femmes et favoriser des décisions éclairées en matière de santé reproductive.

ملخص

الخلفية:

يعدّ تنظيم الأسرة أحد المكونات الأساسية للصحة، ويلعب دورًا مهمًا في تقليل معدلات الوفيات لدى الأمهات وحديثي الولادة. وعلى الرغم من توفر وسائل منع الحمل، لا تزال قلة المعرفة تشكل عائقًا رئيسيًا أمام استخدامها بشكل فعال، مما يساهم في حدوث حالات الحمل غير المرغوب فيه ونتائج صحية سلبية.

الهدف:

هدفت هذه الدراسة إلى تقييم مستوى المعرفة بوسائل منع الحمل لدى النساء المترددات على مصلحة أمراض النساء والتوليد بالمركز الاستشفائي الجامعي محمد السادس بمراكش، كما سعت إلى تحديد العوامل المرتبطة بمستوى هذه المعرفة.

المنهجية:

أُجريت دراسة مقطعية وصفية تحليلية خلال الفترة الممتدة من دجنبر 2025 إلى فبراير 2026، وشملت 193 امرأة تم استقبالهن إلى مصلحة أمراض النساء والتوليد بالمركز الاستشفائي الجامعي محمد السادس بمراكش.

تم جمع المعطيات من خلال مقابلات مباشرة باستخدام استبيان مُعتمد باللغة العربية يقيس المعارف والمواقف والممارسات المتعلقة بوسائل منع الحمل.

تم تصنيف مستوى المعرفة إلى ضعيف أو جيد اعتمادًا على نظام تنقيط محدد مسبقًا. وأجري التحليل الإحصائي باستخدام برنامج SPSS ، مع اعتماد مستوى دلالة إحصائية $p < 0.05$.

النتائج:

على الرغم من أن معظم المشاركات كنّ على دراية بوسائل منع الحمل (99.7%)، فإن الغالبية أظهرن مستوى معرفة عام ضعيف (79.0%). وقد تم تحديد فجوات معرفية مهمة، خاصة فيما يتعلق بأكثر الوسائل فعالية، والوقاية من الأمراض المنقولة جنسيًا، ووسائل منع الحمل الطارئة.

فقط 6.2% من المشاركات تمكنّ من تحديد الوسيلة الأكثر فعالية بشكل صحيح، و14.5% فقط عرفن أن الواقي الذكري يحمي من الأمراض المنقولة جنسيًا. كما كانت المعرفة بوسائل منع الحمل الطارئة منخفضة (19.1%).

كانت مصادر المعلومات الرئيسية غير رسمية، حيث اعتمدت معظم النساء على العائلة والأصدقاء (94.8%) ووسائل التواصل الاجتماعي (72.8%)، في حين لم تتجاوز نسبة الاعتماد على مقدمي الرعاية الصحية 9.3%. وأظهرت النتائج وجود علاقة ذات دلالة إحصائية بين مستوى المعرفة الجيد وكل من ارتفاع المستوى التعليمي ($p = 0.010$)، واستخدام وسائل التواصل الاجتماعي ($p = 0.010$)، واستخدام وسائل منع الحمل سابقًا ($p = 0.023$)، ووجود سوابق لحمل غير مرغوب فيه ($p = 0.004$).

الخلاصة:

لا تزال هناك فجوات معرفية مهمة لدى النساء في هذه الفئة، خاصة فيما يتعلق بفعالية الوسائل وطريقة استخدامها الصحيحة. وتبرز هذه النتائج الحاجة إلى تدخلات تعليمية منظمة ومتمحورة حول المريضة. إن تعزيز دور مقدمي الرعاية الصحية في التوعية والتوجيه، وتطوير وسائل تعليمية سهلة الوصول مثل الكتيبات والوسائط الرقمية، يمكن أن يساهم في تحسين معارف النساء ودعم اتخاذ قرارات مستنيرة في مجال الصحة الإنجابية.



BIBLIOGRAPHY



1. **Coulson j, sharma v, wen h.**
understanding the global dynamics of continuing unmet need for family planning and unintended pregnancy
China Popul Dev Stud. 2023;7(1):1–14. doi:10.1007/s42379-023-00130-7
2. **United Nations Department of Economic and Social Affairs, Population Division.**
World family planning 2022: meeting the changing needs for family planning: contraceptive use by age and method [Internet].
New York: United Nations; 2022. Available from: <http://www.unpopulation.org>.
3. **United Nations Population Fund (UNFPA).**
State of world population 2022: seeing the unseen: the case for action in the neglected crisis of unintended pregnancy [Internet]. New York (NY): UNFPA; 2022. Available from: <https://www.unfpa.org>
4. **Bearak J, Popinchalk A, Ganatra B, Moller AB, Tunçalp Ö, Beavin C, Kwok L, Alkem A L.**
Unintended pregnancy and abortion by income, region, and the legal status of abortion: estimates from a comprehensive model for 1990–2019.
The lancet global health. 2020 sep;8(9):e1152–61. doi:10.1016/s2214-109x(20)30315-6
5. **Hall KS, Ela E, Zochowski MK, Caldwell A, Moniz M, McAndrew L, Steel M, Challa S, Dalton VK, Ernst S.**
“I don’t know enough to feel comfortable using them:” women’s knowledge of and perceived barriers to long-acting reversible contraceptives on a college campus.
Contraception. 2016 jun;93(6):556–64. doi:10.1016/j.contraception.2016.02.007
6. **Alkalash SH, Alessi SM, Alrizqi AA, Alamri AA, Al Kenani A, Alrizqi HA, Alqozi R.**
Knowledge on, attitude toward, and practice of contraceptive methods among females of reproductive age in al-Qunfudah governorate, Saudi Arabia.
Cureus. 2023;15(3):e36606. doi:10.7759/cureus.36606
7. **Haynes MC, Ryan N, Saleh M, Winkel AF, Ades V.**
Contraceptive knowledge assessment: validity and reliability of a novel contraceptive research tool.
Contraception. 2017;95(2):139–45. doi:10.1016/j.contraception.2016.09.002

8. **Kang PW, Chua SS, Ponnupillai A.**
Knowledge of Malaysian university students on methods of contraception, assessed using a validated instrument (knowledge on methods of contraception).
Malays J Pharm. 2021;7(2):22–31. doi:10.52494/SEM5847

9. **Atlam S, Borg H, Daoud W.**
Contraception and family planning: knowledge, attitude, pattern of use, and barriers among females in Gharbia governorate, Egypt.
J Med Sci Res. 2022;5:155-63. doi:10.4103/jmisr.jmisr_69_21

10. **Alwabari AA, AlGhannam KA, Aljassim MJ, Bograin KI, Alturaifi MR.**
Knowledge, attitude, and practice of family planning among Saudi primary health care attendees in Al-Ahsa, kingdom of Saudi Arabia.
Cureus. 2023;15(6):e40551. doi:10.7759/cureus.40551

11. **Sanz-Martos S, López-Medina IM, Álvarez-García C, Álvarez-Nieto C.**
Sexuality and contraceptive knowledge in university students: instrument development and psychometric analysis using item response theory.
Reprod Health. 2019;16:127. doi:10.1186/s12978-019-0791-9

12. **Barbour B, Salameh P.**
Knowledge and practice of university students in Lebanon regarding contraception.
East Mediterr Health j. 2009;15(2):387–99. doi:10.26719/2009.15.2.387

13. **Taheri S, Sereidi A, Mamari S, Darwish E.**
Contraceptive knowledge, attitudes, and use among women visiting primary healthcare centers in Abu Dhabi Island.
Int J Reprod Contracept Obstet Gynecol. 2019;8(5):1827–34. doi:10.18203/2320-1770.ijrcog20191927

14. **Wodaynew T, Bekele D.**
Assessment of knowledge, attitude and practice of contraceptive use among postpartum women in Jimma university medical center, Jimma town, South West Ethiopia.
Int J Women's Health Wellness. 2021; 7:130. doi:10.23937/2474-1353/1510130

15. **Isa A, Aderibigbe SA, Azees AS, Lawal I, Adesani–Olaosebikan SM, Adana NS, Okeke IB.**
Knowledge and use of contraceptives among female undergraduates in Kwara state, Nigeria.
Cross River J Med. 2023;2(1):14–23. doi:10.5455/CRJMED.144088

16. **Elghazoui R, Anasse K.**
Exploring sexual and reproductive health education in Morocco: an overview of the literature.
Int J Lang Lit Stud. 2024;6(3):271–280. doi:10.36892/ijlls.v6i3.1776

17. **Rouani A, Rachid B, Fouad Eh, Elouakfaoui A, Chaib A, Touil D, Chaib Y, El Anssari A, Lamri D, Alibrahmi E.**
Health education in the moroccan life and earth sciences curriculum: the current situation and prospects for a preventive approach.
Int J Chem Biochem Sci. 2024;25(13):130–9. Available from:
https://www.researchgate.net/publication/377554973_Health_education_in_the_Moroccan_life_and_earth_sciences_curriculum_the_current_situation_and_prospects_for_a_preventive_approach

18. **Arda Düz S, Tuncay G, Cengiz M, Karaer A.**
The definition of the upper limit of adolescent age in terms of adverse pregnancy outcomes.
Cureus. 2021;13(12):e20591. doi:10.7759/cureus.20591

19. **Stamoulis D, Pierrakos G.**
what constitutes a large family today? A multi-dimensional approach.
Adv Soc Sci Manag. [Internet]. 2023;1(4):6–12. Available from:
[\[https://www.researchgate.net/publication/377554973_Health_education_in_the_Moroccan_life_and_earth_sciences_curriculum_the_current_situation_and_prospects_for_a_preventive_approach\]](https://www.researchgate.net/publication/377554973_Health_education_in_the_Moroccan_life_and_earth_sciences_curriculum_the_current_situation_and_prospects_for_a_preventive_approach)

20. **Dasa TT, Okunlola MA, Dessie Y.**
Effect of grand multiparity on adverse maternal outcomes: a prospective cohort study.
Front public health. 2022;10:959633. doi:10.3389/fpubh.2022.959633

21. **Feyissa TR, Chojenta C, Hassen TA, Beyene T, Khan MN, Bagade T, Harris ML.**
Short birth/pregnancy interval and its association with adverse maternal outcomes in Asia pacific region: a systematic review and meta-analysis.
Midwifery. 2025;144:104342. doi:10.1016/j.midw.2025.104342
22. **Sanjayanathan Keerthi P, Hayagrivas MB, Gupta H, Reddy ES, Mahey R, Upadhyay AD, Varun N.**
Knowledge, attitudes, and practices regarding contraceptive methods among reproductive-age women: a cross-sectional study.
Cureus. 2026;18(2):e104099. doi:10.7759/cureus.104099
23. **Ouazzani Touhami Y,**
Étude des antécédents de contraception des femmes qui ont accouché à la maternité Sidi Lahcen de Témara [thèse de médecine]. Rabat: Faculté de Médecine et de Pharmacie de Rabat; 2022.
24. **Nansseu JRN, Nchinda EC, Katte JC, Nchagnouot FM, Nguetsa GD.**
Assessing the knowledge, attitude and practice of family planning among women living in the Mbouda health district, Cameroon.
Reprod Health. 2015;12:92. doi:10.1186/s12978-015-0085-9
25. **Alameer MI, Muqri KY, Awlaqi AA, Azyabi FY, Yaqoub AM, Suhail HM, Shabaan S, Moafa MH, Alhazmi MA, Alhazmi A.**
Knowledge, attitude and practices regarding contraceptive pill and its side effects among women in Jazan region, Saudi Arabia.
Clin pract. 2022;12(3):268-75. doi:10.3390/clinpract12030032
26. **Niciza J, Elyeli K, Yilmaz ÜD, Necipoğlu D, et al.**
Determination of contraceptive knowledge, attitude, and behavior among nursing students in Northern Cyprus: a cross-sectional study.
BMC Nurs. 2026;25:99. doi:10.1186/s12912-025-04257-5
27. **Berhanu Y.**
Knowledge, attitude and practice of contraception among female students of Dilla secondary and preparatory school, Dilla town, Geddo zone, Ethiopia, 2019.
J Clin Images Med Case Rep. 2022;3(4):1789. doi:10.52768/2766-7820/1789

28. **Chipeta EK, Chimwaza W, Kalilani-Phiri L.**
Contraceptive knowledge, beliefs and attitudes in rural Malawi: misinformation, misbeliefs and misperceptions.
Malawi Med J. 2010;22(2):38-41. doi:10.4314/mmj.v22i2.58790
29. **Salh FM, Abdulridha MK.**
Assessment of awareness about contraception among a sample of Iraqi women using hormonal contraceptives: a cross-sectional study.
Pharmacia. 2025;72:1-14. doi:10.3897/pharmacia.72.e140451
30. **Joshi AK, Tiwari DP, Poudyal A, Shrestha N, Acharya U, Dhungana GP.**
Utilization of family planning methods among postpartum mothers in Kailali district, Nepal.
Int j women's Health. 2020;12:487-494. doi:10.2147/ijwh.s249044
31. **Hitayezu JBH, Uwamahoro R, Bazakare MLI, Nzeyimana Z, Kaberuka G, Mutijima V, Twagirumukiza JD, Bagirisano J, Rwibasira G, Dzinamarira T.**
Knowledge, attitudes, practice and factors associated with the prevalence of modern contraceptives use among women from historically marginalized community in Rwanda: a cross-sectional study.
BMC Public Health. 2025;25:3922. doi:10.1186/s12889-025-25179-6
32. **Kulkarni SJ, More VS, Makde SO, Sharma MV, Barkale RS, Baswant ST.**
A cross-sectional study to assess contraceptive awareness and practices among married women of reproductive age group in a tertiary care institute.
J South Asian Feder Obst Gynaecol. 2023;15(6):670-674. doi:10.5005/jp-journals-10006-2348
33. **Devasish DP, Baijayanti BR.**
Study On Knowledge, Attitude And Practices Of Contraceptive Methods Among Women Of Reproductive Age Group Of Tribal Community In A Western District (Sambalpur) Of Odisha, India: A Cross-Sectional Study.
Journal of Contemporary Clinical Practice. 2025 Jul;11(7):176-186.
doi : 10.61336/jccp/25-07-24

34. **Yacoubi A.**
Étude des antécédents de contraception des accouchées à la maternité Souissi [thèse en médecine]. Rabat: Université Mohammed V de Rabat; 2019. Thèse N°341.
35. **Nsubuga H, Sekandi JN, Sempeera H, Makumbi FE.**
Contraceptive use, knowledge, attitude, perceptions and sexual behavior among female university students in Uganda: a cross-sectional survey.
BMC womens health. 2016 dec;16(1):6. doi:10.1186/s12905-016-0286-6
36. **Somba MJ, Mbonile M, Obure J, Mahande MJ.**
Sexual behaviour, contraceptive knowledge and use among female undergraduates' students of Muhimbili and Dar es Salaam Universities, Tanzania: a cross-sectional study.
BMC Womens Health. 2014 dec;14(1):94. doi:10.1186/1472-6874-14-94
37. **Mubashar H, Almushait M, Sukit B, Shaamash A, Handady S, Almutawa N.**
Knowledge, attitude and practice of contraceptives among Saudi women in Aseer region, Saudi Arabia.
Bangladesh j med sci. 2016 nov 3;15(3):430-434. doi:10.3329/bjms.v15i3.25288
38. **Coulibaly M, Koumi-Mélèdje MD, Kouame J, Hounsa A, Oga S, Aké Tanoh O.**
Connaissances et utilisation de la contraception moderne chez les femmes venues en consultation à l'Institut National de Santé Publique d'Abidjan.
Rev Mar Santé Publique. 2023;10(16):25-28. Available from:
<https://revues.imist.ma/index.php/RMSP/article/view/31462>
39. **Shukla M, Fonseca M, Deshmukh P.**
A study on contraceptive knowledge, attitudes and practices among women in the reproductive age group.
Int J Reprod Contracept Obstet Gynecol. 2017;6(8):3560-3563. doi:10.18203/2320-1770.ijrcog20173484
40. **Masirika BI, Bisimwa SC, Mukengere CC.**
Connaissance des femmes sur les méthodes contraceptives dans la zone de santé rurale de Miti-Murhesa, province du Sud-Kivu, RDC. [Internet]. 2018. Available from:
<https://hal.science/hal-03412173/document>

41. **Tilahun T, Coene G, Luchters S, Kassahun W, Leye E, Temmerman M, Degomme O.**
Family planning knowledge, attitude and practice among married couples in Jimma zone, Ethiopia.
PLoS One. 2013 Apr 23;8(4):e61335. doi:10.1371/journal.pone.0061335

42. **Williamson LM, Parkes A, Wight D, Petticrew M, Hart GJ.**
Limits to modern contraceptive use among young women in developing countries: a systematic review of qualitative research.
Reprod Health. 2009;6:3. doi:10.1186/1742-4755-6-3

43. **Thulaseedharan JV.**
Awareness and actual knowledge regarding contraceptive methods among young women in Trivandrum district, Kerala, India.
Int J Med Sci Public Health. 2018;7(2):103-109.
doi:10.5455/ijmsph.2018.1131212122017

44. **Rua S, Cardoso C, Silva I.**
Contraceptive methods: knowledge and factors influencing their choice among women of reproductive age—a cross-sectional study in Portugal.
Aten Primaria. 2026 Apr;58(4):103381. doi:10.1016/j.aprim.2025.103381

45. **Alhassan HN, Alkhudhair MN, Alkhamis M.**
Knowledge, attitude, and practice related to contraception use among childbearing women in the Al-Ahsa region, Saudi Arabia.
Cureus. 2025;17(7):e88005. doi:10.7759/cureus.88005

46. **Craig AD, Dehlendorf C, Borrero S, Harper CC, Rocca CH.**
Exploring young adults' contraceptive knowledge and attitudes: disparities by race/ethnicity and age.
Womens Health Issues. 2014 May;24(3):e281-9. doi:10.1016/j.whi.2014.02.003

47. **Assarag B, El Omrani S, Bezad R.**
Priorities for sexual and reproductive health in Morocco as part of universal health coverage: maternal health as a national priority.
Sex Reprod Health Matters. 28(2):1845426. doi:10.1080/26410397.2020.1845426

48. **Ammerdorffer A, Laws M, Awiligwe A, Erb F, Im-Amornphong W, Gülmezoglu AM, Chinery L, Lucido B, Narasimhan M.**
Regulatory standards and processes for over-the-counter availability of hormonal contraception and drugs for medical abortion in five countries in the Eastern Mediterranean Region
Health Res Policy Syst. 2021 Apr;19(suppl1):51. doi:10.1186/s12961-020-00661-2
49. **Ayele AD, Beyene FY, Kassa BG, Mihretie GN.**
Men's knowledge of vasectomy and its associated factors in Debre Tabor Town, Northwest Ethiopia: a community-based cross-sectional study.
Open access J Contracept. 2021 Feb 11;12:27-34. doi:10.2147/OAJC.S296798
50. **Abdelgader A, Elrasheed FE, Suliman H, Abuobida B, Abdelmageed MM, Elhawari S, Elzein AM, Abdelwahid A, Alatawi Z, Mohamed M.**
Men's knowledge and attitudes regarding vasectomy: a comprehensive cross-sectional study.
J Neonatal Surg. 2025 Jun 12;14(32s):1111-1126. doi:10.63682/jns.v14i32s.7502
51. **Roudsari RI, Sharifi F, Goudarzi F.**
Barriers to the participation of men in reproductive health care: a systematic review and meta-synthesis.
BMC Public Health. 2023 May 4;23:818. doi:10.1186/s12889-023-15692-x
52. **Kalia M, Rohilla R, Walia DK, Goel NK, Vashisht D, Vashisht P, Singh P.**
Knowledge and practices of lactational amenorrhea among urban slum-dwelling women in Chandigarh
J Integr Med Public Health. 2024 jul;3(2):66-71. doi:10.4103/jimph.jimph_15_24
53. **Pirincci E, Taşdemir R, Oguzoncul AF.**
Knowledge of lactational amenorrhea as a contraceptive method among mothers of infants aged 0-6 months in a district, Eastern Turkey
Int J Community Med Public Health. 2016;3(6):1363-1370. doi:10.18203/2394-6040.ijcmph20161601
54. **Sharma M, Tomar P, Sharma P, Singh L, Majhi S.**
Knowledge attitude and perception about contraceptives in females: a quantitative insight
J Appl Pharm Sci Res. 2021 Jul 9;4(1):7-12. doi:10.31069/japsr.v4i1.2

55. **Hajison PI, Mpachika-Mfipa F, Pitso L, Tshotetsi L, Chimatiro CS.**
Fertility awareness, perceived factors and approaches to improve contraceptive uptake among sexually active adolescent girls in Phalombe, Malawi: a mixed-methods study.
Reprod Health. 2024 Nov 12;21(1):161. doi:10.1186/s12978-024-01904-z
56. **Eisenberg DI, Secura GM, Madden TE, Allsworth JE, Zhao Q, Peipert JF.**
Knowledge of contraceptive effectiveness.
Am J Obstet Gynecol. 2012 Jun 1; 2012 Jun;206(6):479.e1-9.
doi:10.1016/j.ajog.2012.04.012
57. **Gallo MF, Nguyen N, Nguyen C, Steiner MJ.**
Knowledge of contraceptive effectiveness and method use among women in Hanoi, Vietnam.
Contracept x. 2019 Jul 11;1:100009. doi:10.1016/j.conx.2019.100009
58. **Kakaiya R, Lopez LL, Nelson AL.**
Women's perceptions of contraceptive efficacy and safety.
Contracept Reprod Med. 2017 dec;2(1):19. doi:10.1186/s40834-017-0046-5
59. **Bhat A, Jain M, Manjunath GN.**
Perception of women on safety and efficacy of contraceptives: a comparative study.
J Fam Med Prim Care. 2024 jan;13(1):249-253. doi:10.4103/jfmpc.jfmpc_599_23
60. **D'souza P, Bailey JV, Stephenson J, Oliver S.**
Factors influencing contraception choice and use globally: a synthesis of systematic reviews.
Eur J Contracept Reprod Health Care. 2022 sep 3;27(5):364-372.
doi:10.1080/13625187.2022.2096215
61. **Ritter T, Dore A, McGeechan K.**
Contraceptive knowledge and attitudes among 14-24-year-olds in New South Wales, Australia.
Aust N Z J Public Health. 2015 Jun;39(3):267-269. doi:10.1111/1753-6405.12367

62. **Cegolon L, Bortolotto M, Bellizzi S, Cegolon A, Bubbico L, Pichierri G, Mastrangelo G, Xodo C.**
A survey on knowledge, prevention, and occurrence of sexually transmitted infections among freshmen from four Italian universities.
Int J Environ Res Public Health. 2022 Jan 14;19(2):897. doi:10.3390/ijerph19020897
63. **Kongnyuy EJ, Ngassa P, Fomulu N, Wiysonge CS, Kouam L, Doh AS.**
A survey of knowledge, attitudes and practice of emergency contraception among university students in Cameroon.
BMC Emerg Med. 2007 dec;7(1):7. doi:10.1186/1471-227x-7-7
64. **AlNujaidi H, AlSaif A, AlAnsary NFS, Althumiri NA, BinDhim NF.**
The knowledge and determinants of sexual health and sexual transmitted infections among women in Saudi Arabia: a nationwide survey.
Int J Womens Health. 2023 Nov; 15:1745-1756. doi:10.2147/ijwh.s434179
65. **Küçükkeleşçe DŞ, Taşdemir B.**
Identifying behaviors and factors influencing the prevention of sexually transmitted diseases in young adults.
Rev Assoc Médica Bras. 2025;71(8):e20250634. doi:10.1590/1806-9282.20250634
66. **Mekonnen G, Enquselassie F, Tesfaye G, Semahegn A.**
Prevalence and factors affecting use of long acting and permanent contraceptive methods in Jinka town, Southern Ethiopia: a cross sectional study.
Pan Afr Med J. 2014;18. doi:10.11604/pamj.2014.18.98.3421
67. **Leung A, Loh A, Pentlicky S, Gurney EP.**
Knowledge and Attitudes About Sterilization and Long-Acting Reversible Contraception.
Matern Child Health J. 2021 Aug;25(8):1336-44. doi:10.1007/s10995-021-03172-w
68. **Mosley EA, Monaco A, Zite N, Rosenfeld E, Schablik J, Rangnekar N, Hamm M, Borrero S.**
U.S. physicians' perspectives on the complexities and challenges of permanent contraception provision.
Contraception. 2023 May;121:109948. doi:10.1016/j.contraception.2023.109948

69. **Shreffler KM, McQuillan J, Greil AL, Johnson DR.**
Surgical sterilization, regret, and race: Contemporary patterns.
Soc Sci Res. 2015 Mar;50:31–45. doi:10.1016/j.ssresearch.2014.10.010
70. **Gudu W, Bekele D, Surur F, Teklu A, Abesha Y, Nigatu B, Kassa M, Lako TK, Sium AF.**
Role of male partner in women's fertility decision and family planning utilization in four regional states of Ethiopia: A mixed-method study.
Int J Gynecol Obstet. 2023;163(2):672–678. doi:10.1002/ijgo.14973
71. **Campo-Engelstein L.**
Contraceptive Justice: Why We Need a Male Pill.
The AMA Journal of Ethic. 14(2):146–51. Doi :10.1001/virtualmentor.2012.14.2.msoc1-1202
72. **Fouad RA, AlShaikh-Mubarak GA, Alruwaished FF, Alrasheed NY, Alessad RA, Alabdullah RN, Alali NA, Aljawf LS.**
Prevalence and Impact of Contraceptive Misconceptions Among Married Women in Al-Ahsa, Saudi Arabia.
Healthcare. 2025 Dec 12;13(24):3256. doi:10.3390/healthcare13243256
73. **Machado RB, De Melo NR, Prota FE, Lopes GP, Megale A.**
Women's knowledge of health effects of oral contraceptives in five Brazilian cities.
Contraception. 2012 Dec;86(6):698–703. doi:10.1016/j.contraception.2012.05.016
74. **Alhusain F, Alkaabba F, Alhassan N, Alotaibi S, Breakeit S, Musaudi E, Alhasan A.**
Patterns and knowledge of contraceptive methods use among women living in Jeddah, Saudi Arabia.
Saudi J Health Sci. 2018;7(2):121. doi:10.4103/sjhs.sjhs_8_18
75. **Khiba R, Nyangu I.**
The Utilization of Contraceptives by Teenagers in Lesotho: A Descriptive Cross-Sectional Survey.
Am J Nurs Health Sci. 2024 Jul 29;5(3):58–64. doi:10.11648/j.ajnhs.20240503.13

76. **Adewale FB, Adekanye AO, Erinle SA, Nwosu IC, Nwosu AE.**
Awareness and use of emergency contraception among women attending antenatal clinic in a tertiary hospital in Nigeria.
J Turk-Ger Gynecol Assoc. 2025 Dec 3. doi:10.4274/jtgga.galenos.2025.2025-5-3
77. **Chaudhary S.**
Knowledge, attitude and practice towards emergency contraceptive pills and factors hindering its use among femareproductive age group visiting urban health centre at Rajbiraj, Nepal.
Int J Reprod Contracept Obstet Gynecol. 2022 Feb 25;11(3):676. doi:10.18203/2320-1770.ijrcog20220544
78. **Erko FB, Demissie BN, Yabeyu AB, Haile KT, Bilal AI.**
Emergency contraception knowledge, utilization and its determinants among selected young females in Addis Ababa, Ethiopia.
Contracept Reprod Med. 2025 Mar 31;10(1):24. doi:10.1186/s40834-025-00344-9
79. **Pukale ProfDrRS, Sripooja DrG, S DrVG.**
A study to assess knowledge and awareness about contraception and emergency contraceptives in younger generation.
Int J Environ Sci. 2025 Jun 15;11(10s):572-7. doi:10.64252/a40f0z85
80. **Agrawal S, Irwin C, Dhillon-Smith RK.**
An evaluation of the quality of online information on emergency contraception.
Eur J Contracept Reprod Health Care. 2021 Jul 4;26(4):343-8. doi:10.1080/13625187.2021.1887476
81. **Goel P, Nebhinani M, Rani R.**
Knowledge and barriers towards use of family planning methods among women: a study from Western India.
Int J Community Med Public Health. 2020 Oct 26;7(11):4385. doi:10.18203/2394-6040.ijcmph20204734
82. **Tanveer H, Altaf S, Hafeez S, Anwar Z, Younas B, Khalil S.**
Knowledge, Attitude, and Practices Regarding Contraception Among Postnatal Mothers: A Cross-Sectional Study at a Single Institution in Lahore.
Life Sci. 2025 Oct 8;6(4):06. doi:10.37185/LnS.1.1.978

83. Little P, Griffin S, Dickson N, Sadler C.
Unwanted pregnancy and contraceptive knowledge: identifying vulnerable groups from a randomized controlled trial of educational interventions.
Fam Pract. 2001 Aug 1;18(4):449-53. doi:10.1093/fampra/18.4.449
84. Philipson S, Wakefield CE, Kasparian NA.
Women's Knowledge, Beliefs, and Information Needs in Relation to the Risks and Benefits Associated with Use of the Oral Contraceptive Pill.
J Womens Health. 2011 Apr;20(4):635-42. doi:10.1089/jwh.2010.2455
85. Saha R, Paul P, Yaya S, Banke-Thomas A.
Association between exposure to social media and knowledge of sexual and reproductive health among adolescent girls: evidence from the UDAYA survey in Bihar and Uttar Pradesh, India.
Reprod Health. 2022 Aug 17;19(1):178. doi:10.1186/s12978-022-01487-7
86. Ameyaw EK, Budu E, Sambah F, Baatiema L, Appiah F, Seidu AA, Ahinkorah BO.
Prevalence and determinants of unintended pregnancy in sub-Saharan Africa: A multi-country analysis of demographic and health surveys.
PLoS ONE. 2019 Aug 9;14(8):e0220970. doi:10.1371/journal.pone.0220970
87. Obi Ifeanyichukwu, Labiran Adetunji.
Contraception Usage: Knowledge, Attitude and Associated Factors among Women of Reproductive Age Attending a Health Facility in Benin City, Nigeria.
Br J Med Med Res. 2015 Jan 10;9(7):1-13. doi:10.9734/BJMMR/2015/16282



قسم الطبيب

أقسم بالله العظيم

أن أراقب الله في مهنتي.

وأن أصون حياة الإنسان في كافة أطوارها في كل الظروف

والأحوال باذلة وسعي في إنقاذها من الهلاك والمرض

والألم والقلق.

وأن أحفظ للناس كرامتهم، وأستر عورتهم، وأكتم

سرهم.

وأن أكون على الدوام من وسائل رحمة الله، باذلة رعايتي الطبية للقريب

والبعيد، للصالح والطالح، والصديق والعدو.

وأن أثابر على طلب العلم، وأسخره لنفع الإنسان لا لأذاه.

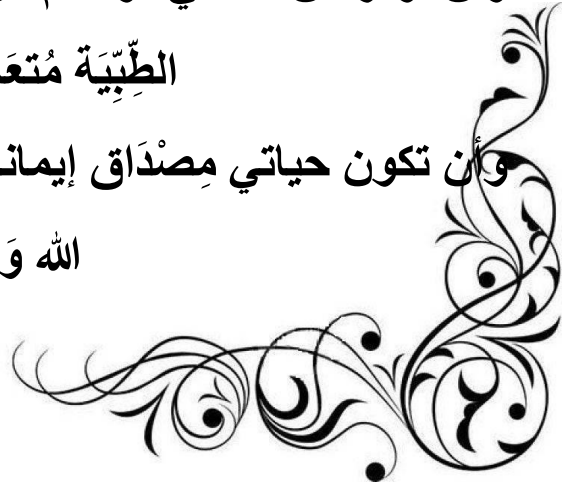
وأن أوقر من علمني، وأعلم من يصغرنى، وأكون أخذا لكل زميل في المهنة

الطبية متعاونين على البر والتقوى.

وأن تكون حياتي مصداق إيماني في سرّي وعلايتي، نقيّة مما يشينها تجاه

الله ورَسُولِهِ والمؤمنين.

والله على ما أقول شهيد



أطروحة رقم 149

سنة 2026

معرفة النساء بوسائل منع الحمل: تقييم وتوصيات من أجل مبادرة تعليمية في قسم أمراض النساء والتوليد بالمستشفى الجامعي محمد السادس بمراكش

الأطروحة

قدمت ونوقشت علانية يوم 2026/04/23

من طرف

السيدة هبة خوياعي

المزودة في 27 فبراير 1999 بمراكش

طبيبة داخلية بالمستشفى الجامعي محمد السادس بمراكش

لنيل شهادة الدكتوراه في الطب

الكلمات الأساسية:

منع الحمل - معرفة وسائل منع الحمل - تنظيم الأسرة - مستوى المعرفة

اللجنة

الرئيس

ل. بوخاني

السيد

أستاذ في أمراض النساء والتوليد

المشرفة

ب. فاخر

السيدة

أستاذة في أمراض النساء والتوليد

ك. هارو

السيد

أستاذ في أمراض النساء والتوليد

ل. أدرموش

السيدة

أستاذة في الصحة العامة وطب المجتمع

الحكام

