A SYSTEMATIC REVIEW OF FACTORS INFLUENCING CONTRACEPTIVE COMPLIANCE OF WOMEN IN DEVELOPING COUNTRIES

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ABSTRACT

Maternal Mortality Has Declined Worldwide Since 1990, Although Rates Are Still High In Many Low-Income Nations, Underscoring The Need For Family Planning. Using PRISMA And MMAT Standards, This Systematic Review Comprised 43 Studies With 3,164,624 Individuals To Evaluate The Factors Impacting Women's Usage Of Contraceptives. Older Age, Spouse Support, Religious Affiliation, Education, Work, And Interaction With Medical Professionals Were Important Factors In Determining Uptake; On The Other Hand, Adherence Was Lowered By Obstacles Such Misinformation, Stigma, Fear Of Side Effects, Financial Limitations, And Restricted Access. The Most Popular Methods, Particularly In Rural And Religious Contexts, Were Condoms And Depo-Provera. Both Enduring Barriers Like Societal Stigma, A Lack Of Finances, And Insufficient Counseling, As Well As Enabling Elements Like Education And Supportive Partners, Influence Women's Contraceptive Behavior. Attitudes Of Providers And Postpartum Family Planning Are Also Important Factors. Education And Awareness, Partner Participation In Therapy, Affordable Access, Provider Training, And Removing Financial And Cultural Barriers Should Be The Top Priorities Of The Strategy.

KEYWORDS

Influencing Factors, Contraceptive Compliance, Women, Developing Countries

1. INTRODUCTION

Pregnancy And Childbirth Complications Remain The Leading Causes Of Mortality Among Women. Notably, The Majority Of Maternal Deaths Can Be Prevented Or Treated. Contraception, Or Family Planning, Is One Of The Most Effective Techniques For Lowering Maternal Mortality Caused By High-Risk And High-Parity Pregnancies, As Well As Unsafe Abortions [1]. Globally, Six Out Of Ten Women With Unwanted Pregnancies Undergo Induced Abortion, And Around Half Suffer Complications From Unsafe Operations, With Low-Income Countries Accounting For 97% Of Such Occurrences [2]. In Underdeveloped Countries, There Are An Estimated 74 Million Unwanted Pregnancies, 25 Million Unsafe Abortions, And 47,000 Fatalities Per Year Due To Unsafe Abortion Complications [1]. The World Health Organization (2020) Estimates That Adequate Contraception Might Avoid More Than Two-Fifths Of Maternal Mortality Globally.

The Basic Goal Of Contraception Is To Prevent Fertilization And, Thus, Pregnancy. Beyond That, Contraception Has Significant Health Benefits, Including Lowering Pregnancy-Related Morbidity And Mortality And Mitigating The Risks Associated With Unwanted Pregnancies [2]. Hormonal Therapies, Including Oral And Injectable Contraceptives, Can Help Reduce The Risk Of Reproductive System Malignancies And Treat Some Gynecological Diseases. Furthermore, Contraception Promotes Women's Empowerment And Overall Socioeconomic Development. Historically, The Primary Goals Of Contraception Have Been To Avoid Unplanned Pregnancies, Lower Health Risks For Very Young And Elderly Pregnant Women And Protect Maternal And Child Health. Its Advantages Go Beyond Childbearing, Ensuring That Women's Bodies Are Sufficiently Healthy To Safely Undergo Pregnancy [1,3]. Pregnancy And Delivery Difficulties Are The Major Causes Of Maternal Death Among Early Teens, With Adolescent Pregnancies Being Significantly Linked To Preterm Birth, Low Birth Weight, Severe Neonatal Complications, Pregnancy-Induced Hypertension, And Puerperal Sepsis. Furthermore, Adolescent Pregnancy Contributes Significantly To Induced Abortions [2]. Contraception Is An Effective Technique For Minimizing These Risks, Helping Young Girls Avoid Biological, Physical, Emotional, And Social Problems Of Early Pregnancy [3-8].

Women Over 35 Are Also More Likely To Experience Maternal Health Issues Such As Abortion, Antepartum Hemorrhage, Pregnancy-Induced Hypertension, Eclampsia, Gestational Diabetes, And Cesarean Birth. Their Infants Are More Likely To Develop Neonatal Problems Such As Intrauterine Mortality, Premature Birth, Down Syndrome, And Other Congenital Abnormalities [4-6, 9]. Contraception Allows Women Over 35 To Plan Or Postpone Pregnancy, Modify Subsequent Pregnancies To Their Health State, And Improve Maternal And Neonatal Outcomes [6]. Maternal And Child Health Outcomes Have Improved Significantly As A Result Of The Deployment Of Integrated Maternity And Child Healthcare Services, Including The Use Of Modern Contraceptives. Furthermore, Contraceptives Provide Other Health Benefits, Including As Lowering The Risk Of Reproductive Cancer And Treating A Variety Of Menstrual Diseases [3, 10]. Contraception Offers Significant Social And Economic Benefits. Contraception Allows Women To Complete Their Education And Develop In Their Careers By Spacing Or Deferring Their Pregnancy. It Can Also Improve Family Well-Being By Empowering Parents To Make Educated Decisions About Reproduction, Lowering The Risk Of Neglect Or Bias Toward Unwanted Children, And Allowing For More Focused Investment And Care For Each Child. Furthermore, Contraception Can Improve Women's Socioeconomic Standing By Empowering Them And Improving Their Earning Capacity. Furthermore, Efficient Family Planning Helps To Avoid Rapid Population Increase, Which Can Strain A Country's Natural And Economic Resources While Exacerbating Health And Wealth Inequities [3,11,12].

Contraceptive Use Is Substantially Connected To Lower Maternal Death Rates. It Is Crucial In Reducing The Effects Of Unwanted And Medically High-Risk Pregnancies. Policies And Recommendations On Contraception And Fertility Planning Have Been Devised And Promoted Ahead Of Time To Recognize Their Importance. However, Failure Rates Remain High In Many Low-Income Countries, And The Underlying Causes Of Poor Contraceptive Adherence Must Be Addressed In Order To Improve Outcomes. Despite The Implementation Of National Contraception And Fertility Planning Programs In Developing Countries, Many Women Continue To Experience Barriers To Following Recommended Contraceptive Practices. The Millennium Development Goals (Mdgs, 2015) And Sustainable Development Goals (Sdgs, 2030) Focus On Universal Access To Comprehensive Reproductive Healthcare, Including Contraception. These Initiatives Seek To Reduce Maternal Mortality From Pregnancy-Related Causes, As Effective Family Planning Has Proven Advantages For Both Mother And Child Health [5]. Nonetheless, Low-Income Nations Continue To Have Significantly Higher Maternal And Infant Death Rates Than Worldwide Norms. This Systematic Review Aimed To Combine Evidence From Many Studies On Three Essential Factors Impacting Women's Contraceptive

Adherence: Socioeconomic Determinants, Obstacles, And Reproductive Healthcare Service-Related Factors.

2. MATERIAL AND METHODS

The Review Used A Systematic Review Methodology To Answer The Following Question: "Which Barriers, Socioeconomic Factors, And Reproductive Healthcare Service-Associated Factors Influence Contraceptive Compliance Among Women In Developing Countries After 2010?"The Review Question Was Created Using ThePopulation, Intervention, Comparator, Outcomes, Timing, And Setting (PICOTS) Framework, With Women As The Population, Factors Influencing Contraceptive Compliance As Outcomes, Events After 2010 As Timing, And Developing Countries As The Setting. The Interventions Were Referred To As Maternal And Reproductive Health Services. The Feasible, Interesting, Novel, Ethical, And Relevant (FINER) Criteria Led The Development Of Review Question And Overall Design, With A Focus On Feasibility, Innovation, And Relevance.

To Ensure Systematic Reporting And Critical Appraisal, We Used The Preferred Reporting Items For Systematic Reviews And Meta-Analyses (PRISMA) Guideline And A 27-Item Checklist. A Thorough Search OfGoogle Scholar, Sciencedirect, And Scopus Yielded Forty-Three Main Research Publications For Inclusion. These Databases Were Chosen Based On Their Extensive Coverage And High-Quality Peer-Reviewed Research. To Ensure Thoroughness And Uniformity, A Standardized Search Term Template Was Created, Which Included Pertinent Keywords, Synonyms, Antonyms, And Abbreviations. From July To November 2023, Literature Searches Were Conducted Using Advanced Search, Population, Intervention, Comparator, Outcomes (PICO) Search, Boolean Search, And Citation Checking Procedures. Developing Nations Were Characterized Using TheWorld Bank Framework, And Contraceptive Compliance Was Defined As The Consistent And Proper Use Of Prescribed Contraceptive Methods To Prevent Pregnancy.

The Preferred Reporting Items ForSystematic Reviews And Meta-Analyses (PRISMA) Flowchart Outlined The Steps For Identifying, Screening, And Included Research. Duplicates And Ineligible Titles Were Removed From The Records Before Full-Text Articles Were Screened For Eligibility Using Strict Inclusion Criteria: Primary Research Published Online In English Since 2010, Full-Text, Free Access, And Studies Focusing On Women Of Reproductive Age (15-49) In Developing Countries. Only Studies That Examined Obstacles, Socioeconomic Factors, And Reproductive Health Service Influences On Contraceptive Use Were Considered.

An Inter-Reviewer Agreement Form Was Created To Help Reviewers Reach Agreement When Selecting Articles. This Form Collected Operational Definitions, Variables, And Examples For Each Entry, Such As The Paper Title, Authors, Database Source, And Reasons For Inclusion Or Exclusion. Data Extraction Was Carried Out Using A Self-Created Data Extraction Template, Which Collected Detailed Information Such As Study Title, Authorship, Publication Year, Country Of Origin, Research Design, Sampling Method, Population, Data Collection Tools, Sample Size, Analysis Methods, And Specific Contraceptive Compliance Factors. The Data Extraction Template Was Tested On A Few Articles And Tweaked For Clarity And Consistency.

The Review Included A Wide Range Of Socioeconomic Variables, Including Age, Marital Status, Religion, Education, Occupation, Economic Status, Number Of Children, Workload, Contraceptive Technique Type And Efficacy, Knowledge, Attitudes, And Reproductive Health Experiences. Barriers Included Willingness To Become Pregnant, Information Gaps, The Legal Climate, Expense, Cultural Attitudes, Partner Responsibilities, And Healthcare Disparities. Service-Related Criteria Included The Nature Of Reproductive Health Projects, Educational Outreach, Resource Availability, And Public-Private Partnerships. Each Study's Quality Was

Thoroughly Assessed Using TheMixed Methods Appraisal Tool, With Scores Provided Based On Methodological Norms.

A Key Methodological Aspect Was The Employment Of Numerous Reviewer Methodologies To Assure Uniformity And Reduce Bias. Two Independent Reviewers Extracted Data And Cross-Checked Findings To Ensure Relevance And Coherence. Discrepancies Were Resolved Through Conversation Or With Advice From A Supervising Expert, Which Improved The Trustworthiness Of Research Selection And Data Extraction.

The Data Was Analyzed In Two Steps Using Content Analysis. Initially, Data Were Coded And Cross-Checked To Obtain Descriptive Statistics. The Qualitative Data Were Then Divided Into Sub-Themes And Analyzed Using ATLAS.Ti Version 9 Software, With Manual Integration For Any Data That Was Not Caught By The Software. Sensitivity Analyses And Checks For Missing Data Guaranteed Robustness, And Studies With Partial Information Were Only Included If The Validity Was Not Impacted.

Ethical Concerns Were Properly Handled. The Review Protocol Was Approved By The Institutional Review Boards At Both STI Myanmar University And The University Of Bedfordshire In The United Kingdom. The Research Team Followed Strict Standards For Data Collection, Processing, And Interpretation, And No Substantial Dangers Or Conflicts Of Interest Were Discovered. The Review Followed The Best Ethical Practices And Upheld Integrity Throughout The Study Process.

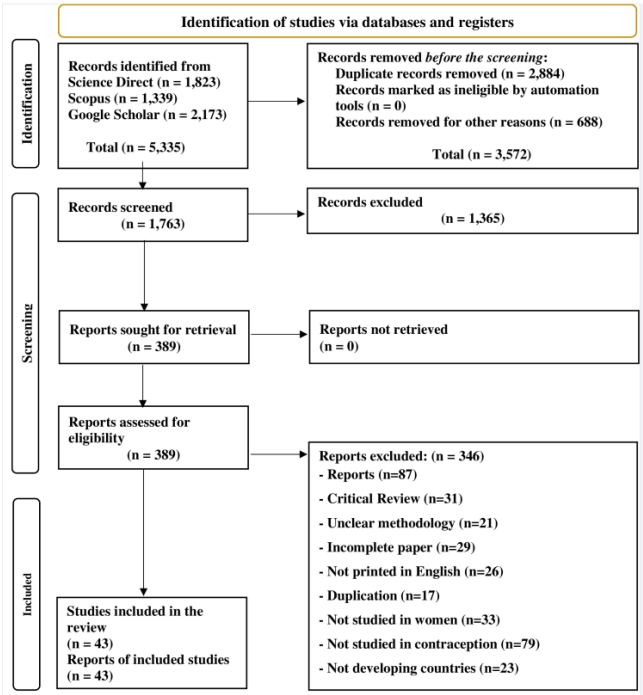
3. RESULTS

The Literature Search For This Review, Which Took Place Between July 13 And November 13, 2025, Gave A Full Comprehension Of The Study Issue. The PRISMA Flowchart Was Used Routinely Throughout The Study Selection Process.

3.1. Paper selection process summary

Two Researchers Searched Sciencedirect, Scopus, And Google Scholar And Found A Total Of **5,335 Titles**, Abstracts, Citations, And References. 3,572 Records Were Eliminated Because They Were Duplicates, Ineligible, Paid Access, Publication Type, Or Did Not Have Full-Text Availability. Following A Thorough And Systematic Evaluation Of The Remaining 1,763 Full-Text Publications, 389 Were Initially Chosen By Both Reviewers, While 1,365 Were Rejected Due To Disagreement Amongst Reviewers About Their Inclusion. Finally, 43 Full-Text Publications Were Agreed Upon And Included In The Analytical Stage Of This Study, As Shown In Figure 1, While 346 Full-Text Articles Were Eliminated For A Variety Of Reasons.

Figure 1. Selection processes of the eligible studies according to the PRISMA flowchart



3.2. Background information of selected studies

This Analysis Examined Contraceptive Data From **43 Studies** Including **3,164,624 Participants**From Developing Countries, With An Emphasis On Low- And Middle-Income Nations. Afghanistan, Bangladesh, Ethiopia, Nigeria, Uganda, Kenya, Ghana, South Africa, And A Number Of Other African, Asian, And Latin American Countries Are Represented. Ethiopia Had The Highest Percentage Of Studies (19%), Followed By Nigeria And Uganda (14% Each), And Kenya And Ghana (10%). The Majority Of The 43 Studies Were Carried Out Between 2011 And 2022. The Most Prevalent Study Designs Were Cross-Sectional (43%), Qualitative (12%), Secondary Data Analyses (12%), And Prospective Cross-Sectional (5%), Followed By Retrospective, Quasi-Experimental, Mixed-Methods, And Case-Control Studies. The Assessment Has A Significant Geographical Focus OnSub-Saharan Africa And South Asia, Emphasizing Locations With High Maternal Mortality And Unmet Family Planning Needs. Quality Assessment Revealed That All Qualitative, Quantitative Descriptive, And Mixed-Methods Research Met All Methodological Standards, But Two Non-Randomized Studies Received A 60% Grade Due To Design Restrictions.

Table 1. Results of Quality Appraisal Work on Selected Studies (n=43)

Criteria	Number of Studies Responding to			
	Yes	No	Can't tell	Rating
Qualitative Studies (n=8)				
1.1. Is the qualitative approach appropriate to answer the research question?	8	0	0	100% (8)
1.2. Are the qualitative data collection methods adequate to address the research question?	8	0	0	100% (8)
1.3. Are the findings adequately derived from the data?	8	0	0	100% (8)
1.4. Is the interpretation of results sufficiently substantiated by data?	8	0	0	100% (8)
1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?	8	0	0	100% (8)
Quantitative Descriptive Studies (n=32)				
4.1. Is the sampling strategy relevant to address the research question?	32	0	0	100% (32)
4.2. Is the sample representative of the target population?	32	0	0	100% (32)
4.3. Are the measurements appropriate?	32	0	0	100% (32)
4.4. Is the risk of nonresponse bias low?	32	0	0	100% (32)
4.5. Is the statistical analysis appropriate to answer the research question?	32	0	0	100% (32)
Mix-methods Studies (n=1)				
5.1. Is there an adequate rationale for using a mixed methods design to address the research question?	1	0	0	100% (1)
5.2. Are the different components of the study effectively integrated to answer the research question?	1	0	0	100% (1)
5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?	1	0	0	100% (1)
5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?	1	0	0	100% (1)
5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?	1	0	0	100% (1)
Quantitative Non-randomized Studies (n=2)				
3.1. Are the participants representative of the target population?	2			60% (2)
3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?	2			60% (2)
3.3. Are there complete outcome data?	2			60% (2)
3.4. Are the confounders accounted for in the design and analysis?		2		60% (2)
3.5. During the study period, is the intervention administered (or exposure occurred) as intended?		2		60% (2)

3.3. Factors Influencing Contraceptive Compliance

3.3.1. Socioeconomic factors

Numerous Social And Cultural Factors Influence The Usage Of Contraception. Age At Marriage And Age At First Sexual Activity Are Crucial; Women Who Marry At 25 Or Older, Or Who Start Having Sex Later, Have Better Contraceptive Compliance [6, 7]. Religious Opposition, Particularly In Some Low- And Middle-Income Countries, Can Have A Considerable Influence On Usage, With Some Leaders Comparing Contraception To Infanticide [8,9], However Not All Research Shows A Significant Religious Effect [11,12]. Cultural Constraints, Particularly InSub-

Saharan Africa, Also Limit Participation Among Young Women [10]. Education Is Critical: Illiterate Women Are Unaware Of Modern Methods In More Than 90% Of Cases, And Women With Less Education Are Almost Three Times Less Likely To Utilize Contraception [13-16]. Occupational And Marital Status Have An Additional Impact On Use; Rural, Unemployed, Or Less Affluent Women, As Well As Those With More Children, Are Less Likely To Comply [6, 8, 9, 16, 17, 19, 21, 22]. Economic Position Increases Compliance By 3% To 16% [9, 20]. Preferred Treatments Are Based On Convenience And Side Effects; Depot Injections Are Preferred, Whereas Oral Contraceptives And Condoms Have Lesser Adherence Or Satisfaction [6,23,24]. Limited Knowledge, Provider Reluctance, And Bad Sexual Experiences All Hamper Compliance [11,20,25].

Table 2. Influencing socioeconomic factors on contraceptive compliance

Exposures and Studies	Outcomes	Strength of Difference
Age		
Beson P, et al. 2018 [26] Wang and Cao, 2019 [16]	Women over 25 were more likely to use any kind of contraception than younger women.	OR=1.62; (95% CI 1.31-2.00
Ochako*et al*., 2014 [9]		OR=1.4
Egede*et al*., 2015 [14]		1.4 times
Seutlwadi*et al*., 2012 [17]	Early sex and contraceptive usage patterns were found to be negatively correlated.	OR-0.2 (95%CI 0.04-0.64)
Rutaremwa*et al*., 2015 [27]	Every year that married women aged by one year, the usage of contraception decreased a little bit.	OR=0.98 (95%CI 0.96-1.00)
Sidibé et al., 2020 [28]	Compared to older women, young women used contemporary contraception at a rate that was roughly three times greater.	AOR-2.8 (95%CI 1.89 4.73)
Race, Religion and Ethnicity		
Tesfaye, Tilahun and Girma, 2012, [13]	Protestant and Muslim women had a lower likelihood of learning about contraception, and 100% of them were unaware of current techniques including emergency contraception, which made them less likely to use them.	*P <0.001* *** (OR -N/A)
Okigbo*et al*., 2015 [29] Beson, et al., 2018 [26]		*P < 0.05** (OR -N/A)
Egede*et al*., 2015 [14]	Roman Catholics were around 0.4 times less likely to use contraception than members of other religions.	*P< 0.05** (OR -N/A)
Wang and Cao, 2019 [16] Bangoura*et al*., 2021 [30]	Most Muslim women were compelled by their religious obligations to refrain from using contraception, and half of all	*P<0.001**** (OR -N/A)
Adedini*et al*., 2018 [31]	There was a noticeably higher rate of contraceptive use. Due to the religious leaders' advice on family planning in some Christian congregations	OR=1.70 (95%CI 1.54-1.87)
Education		
Seutlwadi*et al*., 2012 [17]	The use of contraceptives and women's educational attainment and higher education were positively correlated.	OR-1.48 (95%CI 1.13-1.95)
Muyindike*et al*., 2012 [20]		OR-1.91 (95%CI 1.44- 1.88)
Raine *et al.*, 2011 [6] Ochako*et al*., 2014 [9] Palamuleni, 2013 [32]		*P<0.05** (OR -N/A)
Rutaremwa et al., 2015 [27]		OR=3.03 (95%CI 2.09-4.38)
Damian et al., 2018 [33]		OR=8 (95%CI 1.51–17.48)

Table 2. Influencing socioeconomic factors on contraceptive compliance		
Exposures and Studies	**Outcomes**	**Strength of Difference**
Mansori K.*et al*., 2017 [24]		OR=5 (95%CI 29-14.00)
Adedini et al., 2018 [31] Damian *et al*., 2018 [32]		OR=6 (95%CI 1.14-25.45)
Gejo, Anshebo and Dinsa, 2019 [21]	Contraceptive use decreased by 98.4% among women without a diploma and by 74% among those with only a secondary education.	AOR=0.016 (95%CI 0.001–0.223) AOR=0.26 (95%CI 0.09–0.744)
Occupation		
Ochako*et al*., 2014 [9]	Among women who had jobs at the time, the prevalence of using contraception increased by 4.5%.	*P<0.01*** (OR -N/A)
Tesfaye, Tilahun and Girma, 2012 [13]	Due to ignorance, women working for the government used emergency and modern contraceptives at considerably higher rates than housewives, who used them at significantly lower rates.	*P<0.05** (OR -N/A)
Wang and Cao, 2019 [16] Mitiku*et al*., 2022 [19]	One-third of agricultural women and nearly half of unemployed women did not utilize contraception.	*P<0.001**** (OR -N/A)
Marital status		
Okigbo*et al*., 2015 [28] Beson et al, 2018 [25] Solanke, 2017 [18]	Married women were more likely to use contemporary contraception.than unmarried women	*P<0.05** (OR -N/A)
Adedini*et al*., 2018 [31] Beson et al, 2018 [25]	Contrary to their peers, married women who had their partner's support for using contraception used modern contraception at a considerably higher rate.	*P<0.001**** (OR -N/A)
Number of living children		
Muyindike*et al*., 2012 [20]	Women who had more than one alive kid were more likely to utilize contraception compared to those who had no living children.	OR=3 (95%CI 0.99-6.99)
Palamuleni, 2013 [31]		
Rutaremwa et al., 2015 [26]		OR=1.09 (95%CI 1.022-1.15).
Makenzius et al. 2018 [7]		OR=1.1 (95%CI 1.03-1.16), OR= 1.12 (95%CI 1.04-1.21)
Solanke, 2017 [18]	More women experienced child mortality who did not utilize contraception.	(OR -N/A)
Mitiku et al., 2022 [19] Tegegne*et al*., 2020 [33]	In multiparous women with more than one living child, the likelihood of using contemporary contraception declined.	*P<0.001**** (OR -N/A)
Socio-economic status		
Egede*et al*., 2015 [14]	Contraception was more likely to be accepted by women in higher social classes and income groups than by women in lower social classes and economic groups.	OR=3 (95%CI 1.44 -4.44)
Gejo et al., 2019 [21]		COR=0.269 (95%CI 0.134–0.540)
Sidibé*et al*., 2020 [27]		*P<0.5** (OR -N/A)

Table 2. Influencing socioeconomic factors on contraceptive compliance		
Exposures and Studies	**Outcomes**	**Strength of Difference**
Efficacy of Contraceptives		
Muyindike*et al*., 2012 [20] Prata*et al*., 2011 [23]	While older married women with several children were more likely to use Depo injections, younger married women without children were more likely to utilize oral contraceptive methods. Unmarried women frequently used condoms. Rural married women and women with religious influences tended to use traditional ways more frequently.	(OR -N/A)
Sidze et al., 2014 [34]	The first and second favored methods of contraception were condoms and Depo injections, while the third and fourth were the alternating of injections and pills.	(OR -N/A)
Women's satisfaction		
Abraha et al., 2017 [36]	Women who received family planning advice and postpartum care from trained healthcare professionals were roughly three times more likely to accept contraception than their counterparts.	Family planning advice (AOR, 2.36 (95%CI 1.15-4.87)/ postpartum care (AOR, 5.72 (95%CI 2.67-12.28)
Knowledge and Attitude towards Contraception		
Muanda*et al*., 2017 [37] Muhindo et al., 2015 [15] Rutaremwa et al., 2015 [27]	Those who had access to the media were more knowledgeable about contraception and more willing to accept and utilize it than women who did not.	OR=1.89; (95%CI 1.55-2.30)
Seutlwadi*et al*., 2012 [17] Tegegne*et al*., 2020 [34]	More contraception was used as a result of greater knowledge of contraceptives.	(OR -N/A)
Beson et al, 2018 [26] Mitiku*et al*., 2022 [19]	A higher percentage of modern techniques was influenced by women's favorable sentiments of current methods of contraception.	OR=4.2 (95%CI 1.8–9.8)
Sexual and reproductive health experiences		
Rutaremwa*et al*., 2015 [27]	Mothers who were delivered by experienced birth attendants and mothers who received prolonged postpartum care from skilled birth attendants were more likely to use contemporary contraception at a greater rate.	OR=1.94 (95%CI 1.58-2.39) OR= 1.66 (95%CI 1.07-2.21)
Abraha et al., 2017 [36]	Women who had resumed sexual activity and returned periods were more likely than their peers to utilize current emergency contraception.	AOR=6.35 (95%CI 3.14 - 13.39) AOR=9.53(95%CI 3.74-24.27)

Noted: * (P < 0.05) ** (P < 0.01), *** (P< 0.001), N/A (Not Applicable)

3.3.2. Barriers to Contraceptive Compliance

The Barriers To Contraceptive Compliance Are Varied. Over 30% Of Women Stopped Using Contraception Due To Their Desire For Conception [38], While Compliance Rose When Family

Opposition Was Low And Pregnancy Avoidance Goals Were High (P < 0.0001) [9]. Cultural Norms, Shame, And Discrimination Against Unmarried Women Using Contraception Were Significant Barriers [8]. In Southern Ghana, Contraception Was Viewed As Producing Abortion And Endangering Life [39]. Misconceptions And Information Gaps Were Common, With Many Women Fearing Health Risks Or Miscarriage From Contraception [8,14,39]; More Than Half Were Unaware Of Oral Contraceptive Adverse Effects [40], And Many Sex Workers Were Only Familiar With Condoms [9]. Low-Income Women Faced Significant Financial Constraints, Including Transportation, Sterilization, And Implant Expenses, Despite Some Free Programs [6,8,23]. Medical Requirements, Such As Prescriptions And Testing, Further Restricted Access [8]. Social Support, HIV Counseling, And Health Education Boosted Compliance, Particularly In Areas Where Male Opposition Or Control Was Strong [7,8,10,11,17,23,33]. Pre-Existing Health Issues Also Contributed To Increased Noncompliance, Whereas Single Women Preferred Emergency Contraception [29]. Legal Constraints And Healthcare Inequities, Particularly Among Young, Illiterate, Or Rural Women, Hampered Access [9,13,23,35,37,41,42]. Stigma, Side Effects, And Relationship Disapproval Were Commonly Mentioned As Impediments, Especially Among Adolescents [7,25,30].

Table 3.Barriers to Contraceptive Compliance

Exposures and Studies	Outcomes	Strength of Difference
Willingness of Pregnancy		
Seutlwadi et al., 2012 [17]	Less often used contraceptives were women who frequently had children and planned to get pregnant.	OR=3 to 4 (95%CI 1.89-5.96)
Damian et al., 2018 [33]	Compliance with contraception was highly correlated with the families' preference for having boy	*P<0.001*** (OR -N/A)
Adedini et al., 2018 [31] Solanke, 2017 [18]	Contraceptive compliance was higher among women with big families and those who did not want any more children than among their peers.	18.5% and 23.7% (OR -N/A)
Cultural beliefs		
Egede*et al.*, 2015 [14]	Religious restrictions prevented some people from using any form of contraception.	(OR -N/A)
Muanda*et al*., 2017 [17]	Children are a precious gift given by God, and women are solely responsible for childbearing and creating new human beings. Making a happy family with new generations is a key goal of marriage.	(OR -N/A)
Knowledge deficit		
Håkansson et al. 2018 [10]	Unmarried young women who use contraception are engaging in sex promotion, and contraception makes it more difficult for women to conceive.	(OR -N/A)
Luo et al. 2018 [22]	Women fear side effects, infections from intrauterine devices, and health issues that could compromise their future fertility and health.	(OR -N/A)
Bangoura et al. 2021 [30]	For single women, contraception is a private method that is only used by women.	(OR -N/A)
Roles of Sexual Partners		
Muyindike *et al.*, 2012) [20]	The women with HIV were more likely to use contraceptives if they told their partners about their condition	(OR -N/A)
Adongo *et al*., 2014 [39]	More sexual partners and higher contraceptive rates were found to be strongly correlated.	*P<0.05** (OR -N/A)
Bakesiima*et al*., 2020 [43]	Compared to women whose sexual partners were others, women whose partners were students were	OR=1.2 (95%CI 1.06-2.47)

Table 3.Barriers to Contraceptive Compliance		
Exposures and Studies	**Outcomes**	**Strength of Difference**
	more likely to use contemporary contraceptives.	
Male Involvement		
Damian *et al.*, 2018 [33] Seutlwadi, Karl and Mchunu Gugu, 2012 [17]	The better women's compliance with contraception was substantially correlated with the wives' effective communication with their husbands about contraception.	AOR=3.68 (95%CI 1.67–8.11)
Egede*et al.*, 2015 [14] Palamuleni, 2013 [32]	Higher contraceptive compliance was encouraged by the spouses' approval of the use of contraception.	OR=3.4 (95%CI 1.98-5.48)
Asratie, Kassie and Belay, 2022 [12]	Women who had educated husbands were more likely to not use contraceptives	OR=2.6 (95%CI 1.4–4.7)
Availability of Contraceptives		
Prata*et al.*,2011 [23]	Women had less access to contraception since they were heavily dependent on their husbands or family members for transportation, financial support, and the choice to use contraception.	(OR -N/A)
Nalwadda*et al*., 2011 [8]	In 11 out of 100 facilities, there were no family planning policies or guidelines, and there were little resources accessible based on the different types of health facilities.	*P<0.05** (OR -N/A)
Seidu*et al*. (2022) [44]	The clients' preferences for methods of contraception were frequently disregarded.	(OR -N/A)
Healthcare Inequalities		
Rohmah*et al*. 2021 [45]	Between 2013 and 2017, there was a decline in contraceptive usage among various demographic groups: younger women saw a decrease from 46% to 38%, older women from 47% to 39%, illiterate women from 47% to 39%, poorer women from 39% to 37%, and rural women from 51% to 39%.	(OR -N/A)
Institutional barriers and Stigmatization		
Shiferaw *et al.*, 2017 [42]	Nearly half of the women clients attending the facilities reduced, as did the compliance with contraceptives as travel distance and the overall percentage of stock-outs increased.	(OR -N/A)
Håkansson *et al.*, 2018 [10]	The harshest stigmas were "girls who used contraception will have infertility in later life," "adolescents and young girls are too young to compare and pick contraceptive techniques," and "contraception drives young girls to a promiscuous lifestyle."	(OR -N/A)
Bangoura *et al.*, 2021 [30] Ahinkorah *et al.*, 2021 [46]	Adolescents who were pregnant were more likely to concur that getting contraception was embarrassing for them. Such obstacles helped to explain why so many sexually active adolescent girls had unmet contraceptive needs.	(OR -N/A)
Objection to contraception		
Ochako*et al*., 2018 [9]	Female sex workers objected since using condoms interfered with sex sensation, injectable contraceptives produced fat deposits and atypical vaginal bleeding, oral contraceptives caused nausea and dizziness, and all of these were bad for business.	(OR -N/A)

Noted: * (P < 0.05) ** (P < 0.01), *** (P< 0.001), N/A – (Not Applicable)

3.3.3. Reproductive Health Services-Related Factors

In Terms Of Reproductive Health Programs And Financial Considerations, The Primary Barriers To Effective Government Reproductive Healthcare Services Were Identified As Insufficient Contraceptive Counseling And A Lack Of Client Involvement In Voluntary Decision-Making About Family Planning Methods (8). Despite National Reproductive Health Activities And Recommendations, The Kind And Level Of Health Facilities Limited Access To Contraceptive Techniques [8]. Furthermore, According To Family Planning Awareness Initiatives, Roughly Seven Out Of Every Ten HIV-Positive Women In Myanmar Have Never Used These Services Or Received Credible Information. Barriers Included Healthcare Providers' Lack Of Knowledge About Available Services And Sporadic Implementation Of Family Planning Awareness Programs, Which Deterred Women From Using Public Health Facilities For Family Planning [47]. In Terms Of Postpartum Family Planning, Women Who Got Thorough Contraceptive Counseling During Prenatal And Postnatal Care Were Six Times More Likely To Use Modern Contraceptive Methods And Had Higher Motivation Than Those Who Did Not [10,22]. Medical Workers Were Also Found To Have Negative Attitudes Regarding Family Planning, Indicating Discomfort In Administering Contraceptives To Teenagers And Unmarried Women And, In Some Cases, Refusing To Provide Emergency Contraception Or Condoms [35].

Guidelines and Policy of Reproductive Health Projects		
Nalwadda *et al.*, 2011 [8]	Even though family planning signposts were present, only 1 in 10 health facilities were supported with a maximum of 5 different types of contraception.	(OR -N/A)
Solanke, 2017 [18] Mitiku *et al.*, 2022 [19] Asratie, Kassie and Belay, 2022 [12]	In lower-level healthcare institutions, both patients and medical staff did not have access to comprehensive guides and instructions outlining the benefits and drawbacks of various contraceptive techniques.	(OR -N/A)
Family Planning Awareness Promotion Services		
Ahinkorah *et al.*, 2021 [46]	Activities to raise awareness of reproductive health were ineffective since IEC materials had few resources.	(OR -N/A)
Hnin Hnin Lwin et al. 2019 (67)	Two-thirds of HIV-positive women, regardless of marital status, have never received family planning instruction or health lectures throughout their lifetime. Only 7% of women had good perceived geographical accessibility to family services.	
Nalwadda *et al.*, 2011 [8]	Religious and cultural attitudes purposefully disguised reproductive health education, and there was no support for implementing initiatives to prevent teenage pregnancies, which helps women use contrace	(OR -N/A)
Khurram Azmat *et al.*, 2013 [41]	Contraception acceptance was higher among women who received family planning awareness promotion services compared to women who did not.	*P<0.001*** (OR -N/A)
Post-partum Family Planning (PPFP)		
Khurram Azmat *et al.*, 2013 [41] Gejo, Anshebo and Dinsa, 2019 [21] Makenzius et al., 2018 [7]	Postpartum family planning (PPFP) was substantially correlated with educational level, family planning counseling received, motivation and service use, resuming menstruation, resuming sexual activity, and having had problems with prior contraceptive use.	*P<0.05** (OR -N/A)

Providers' attitude towards family planning		
Sidze *et al.*, (2019) [35]	Nearly 45% of medical professionals attempted to counsel teenage girls against having sex rather than offering contraception counseling and methods, 40% gave health information about HIV/AIDS, STDs, and cervical cancers rather than contraception, and 11% felt uncomfortable offering contraception to young people and non-married women and refused to give out condoms and emergency contraception to these groups of people.	(OR -N/A)

4. DISCUSSION

Contraception Is An Essential Component Of Family Planning, Promoting Maternal And Child Health And Economic Prosperity In Developed Countries. Despite The Availability Of Modern Contraception, Population Growth In Developing Nations Has Not Decreased At The Same Rate [49-51]. This Systematic Review Aims To Inform Healthcare Authorities And Reproductive Health Programs About The Determinants And Challenges That Influence Women's Contraceptive Use, In Order To Drive Better Service Delivery Strategies In Developing Countries.

4.1. Socioeconomic Factors Influencing Contraceptive Compliance

Contraceptive Compliance Was Reported To Be Higher Among Older Women (Aged 25–54), Owing Primarily To Completed Family Size, Fear Of Unplanned Pregnancies, And Health Concerns [52]. Younger Women, On The Other Hand, Frequently Stopped Using Contraception Due To Worries About Side Effects, A Lack Of Information, Or Life Changes Including Unplanned Sexual Activity, Marriage, Or Childbirth [53]. Early Sexual Beginning, Abortion History, And Frequent Sexual Activity All Influenced Usage [54]. Cultural And Religious Beliefs Play Important Roles; In Some Sub-Saharan African Communities, Negative Attitudes From Religious Leaders And Opposition To Sex Education Reduced Contraceptive Use, Particularly Among Protestant And Muslim Women. Illiteracy Was Closely Associated With Non-Use, But Higher Education Boosted Contraceptive Use Five To Eightfold. Employment Also Had A Favorable Impact, As Working Women Gained Empowerment, Financial Security, And Better Health Outcomes[55]. Marital Status Was Important, With Never-Married Women Having Strong Contraceptive Demand, While Stigma Occasionally Hampered Use [56]. The Number Of Living Children Was Significant: Women With Children At Home Had Higher Contraception Rates (19-38%), Which Was Related To Improved Family Communication And A Concern For The Well-Being Of Existing Children [57]. Wealthy Women Were Three To Eight Times More Likely To Utilize Contraception Than Those From Lower Socioeconomic Backgrounds. Poverty Restricts Contraceptive Use While Also Worsening Economic Outcomes As A Result Of Early Or Repeated Unintended Births [58]. Type And Satisfaction With Contraceptive Methods Influenced Compliance; Simplicity Of Use, Adverse Effects, And Pleasant Provider Interactions Were Important, Particularly For Unmarried Women [59]. Sexual And Reproductive Health Events, Such As Being Postpartum Or Having A Delivery Supervised By Trained Staff, Increased Contraceptive Use, Especially Within Six Months Of Childbirth [60,61].

4.2. Barriers to Contraceptive Compliance

The Desire To Become Pregnant, Opposition From Family Members, Preferences For The Gender Of The Kid Or A Limited Family Size, And The Lack Of Children Were Major Obstacles [6,62,63]. Some Women Were Discouraged From Taking Contraception Until Family-Size Goals

Were Reached, And Decisions Were Frequently Decided By Partners Or Family. In Many Communities, There Were Major Religious Limitations And Misconceptions, Such As The Idea That Contraception Interferes With Divine Designs Or Jeopardizes Future Financial Stability [37]. Use Was Discouraged By False Information Regarding Side Effects And Future Fertility, Underscoring The Need For Public Health Initiatives To Dispel Myths And Offer Focused, Youth- And Religion-Sensitive Teaching. Financial Barriers, Method, Travel, And Medical Service Expenses Were Also Common, Particularly For Women With Long-Term Medical Issues. Men's Involvement Was A Double-Edged Sword; Although They Frequently Had The Final Say Over Family Size, Their Involvement In Health Education Increased Women's Compliance. Couples Who Disclosed Their HIV Status Also Used Contraceptives More Consistently. Access Was Hampered By Shortcomings In The Healthcare System, Including Stockouts, A Shortage Of Qualified Workers, And The Requirement That Certain Populations Undergo HIV Testing. The Most Popular Treatment Was Injectable Depo, But Long-Term Solutions Like Implants OrIuds Were Sometimes Too Expensive. To Increase Accessibility, Kathryn Et Al. (2021) Suggested Lowering Barriers, Making Sure That Contraceptive Supplies Are Balanced, And Providing Alternate Strategies.

4.3. Reproductive Health Services-Related Factors

ThisReview Highlighted That The Primary Obstacles To Access Were Minimal Or Nonexistent Contraceptive Counseling, Expense, And Limited Alternatives. By Giving Clients Accurate Information About Contraception And Tailoring Counseling To Their Preferences, Healthcare Providers Can Help Clients Make Well-Informed Decisions [64]. Comprehensive Counseling, Voluntary Fertility Regulation, And Informed Choice Should Be Expanded In All Services Provided By Public And Private Health Programs. Limited Contraceptive Alternatives, Out-Of-Date Recommendations, And A Lack Of Information And Educational Resources Plagued Government And Lower-Level Health Facilities. The Department OfHealth In South Africa Suggested Modernizing Contraceptive Methods, Incorporating Family Planning Into HIV Services, And Coordinating Policy With More General Health Recommendations [65]. Lastly, A Barrier Was The Attitudes Of Providers Toward Teenagers And Single Women; Restrictive Policies Prevented Many Young Women From Receiving Services, Which Increased The Risk Of Unwanted Pregnancies And Unsafe Abortions And Violated Reproductive Rights [66].

5. CONCLUSION

Despite A Large Increase In Contraceptive Use Between 1990 And 2000, Acceptance Of Contraceptive Techniques In Several Developing Countries Has Remained Or Proceeded Slowly After 2010. This Comprehensive Research Elucidates The Issues That Have Hampered Progress In Contraceptive Use And Highlights The Important Criteria Influencing Women's Contraceptive Compliance In Various Settings. The Findings Are Useful For Policymakers And Researchers, And They Can Help To Create More Effective Family Planning And Sexual And Reproductive Health Programme(SRHP) Initiatives. The Results Of This Systematic Research Have Significant Policy Implications For Enhancing Contraceptive Access And Utilization In Poor Nations. First, Tougher Legislation Is Needed To Provide Equitable Contraception Access For Unmarried Women, As Well As Campaigns To Dispel Common Myths And Prejudices. Sexual AndReproductive Health Programs (Srhps) Should Better Serve Vulnerable Populations, Such As Unmarried Women And Commercial Sex Workers, By Offering Accurate Information And Supportive Services.

Efforts Should Be Made To Increase Equitable Access To Family Planning Services, Particularly For Women Living In Geographically Or Socially Isolated Locations, As Well As HIV-Positive

Individuals. Service Providers Must Prioritize The Dignity, Privacy, And Confidentiality Of Vulnerable Groups. Culturally And Linguistically Appropriate Awareness-Raising Campaigns Are Required To Reach Illiterate Women And Successfully Communicate Contraceptive Information. Furthermore, Programs That Address Economic Barriers To Contraception Availability While Increasing Women's Intellectual And Economic Empowerment Are Crucial For Affecting Real Change. Overall, The Research Emphasizes The Significance Of Tailoring Contraceptive Laws And Programs To Each Country's Specific Social And Economic Settings.

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