

Background

Contraception, including oral contraceptives, intrauterine devices, and other methods, is critical in modern family planning and women's reproductive health. Concurrently, dry socket, also known as alveolar osteitis, is a major clinical problem after tooth extraction, characterized by intense postoperative pain and delayed healing of the wound. Contraception and oral health may appear to be separate fields of study, yet they intersect at a vital point—the menstrual cycle.

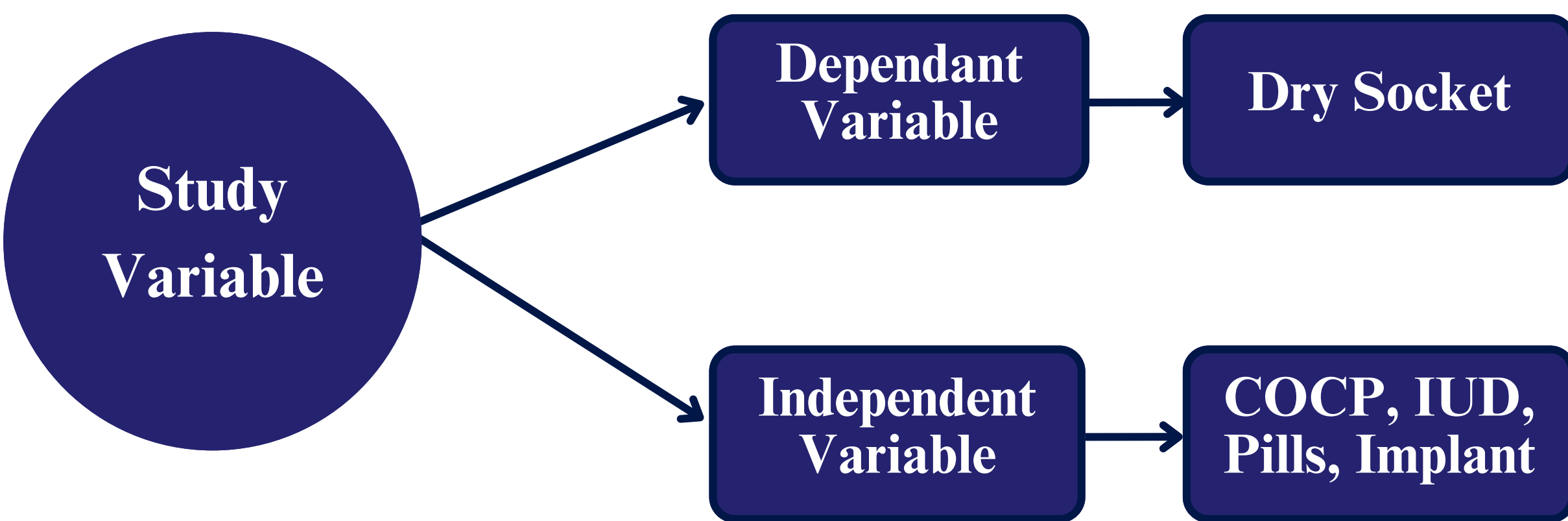
Objective

The objective of this study was to investigate about the potential association between dry socket (localized alveolar osteitis), the use of different methods of contraceptives and time of menstrual cycle.

Methodology

Study Design	Prospective clinical study
Study Setting	Dow International dental college
Population of Study	Patient visiting (surgery department)
Sampling technique	Non-probability purposive
Duration of Study	4 Months
Sample Size	193 Patients

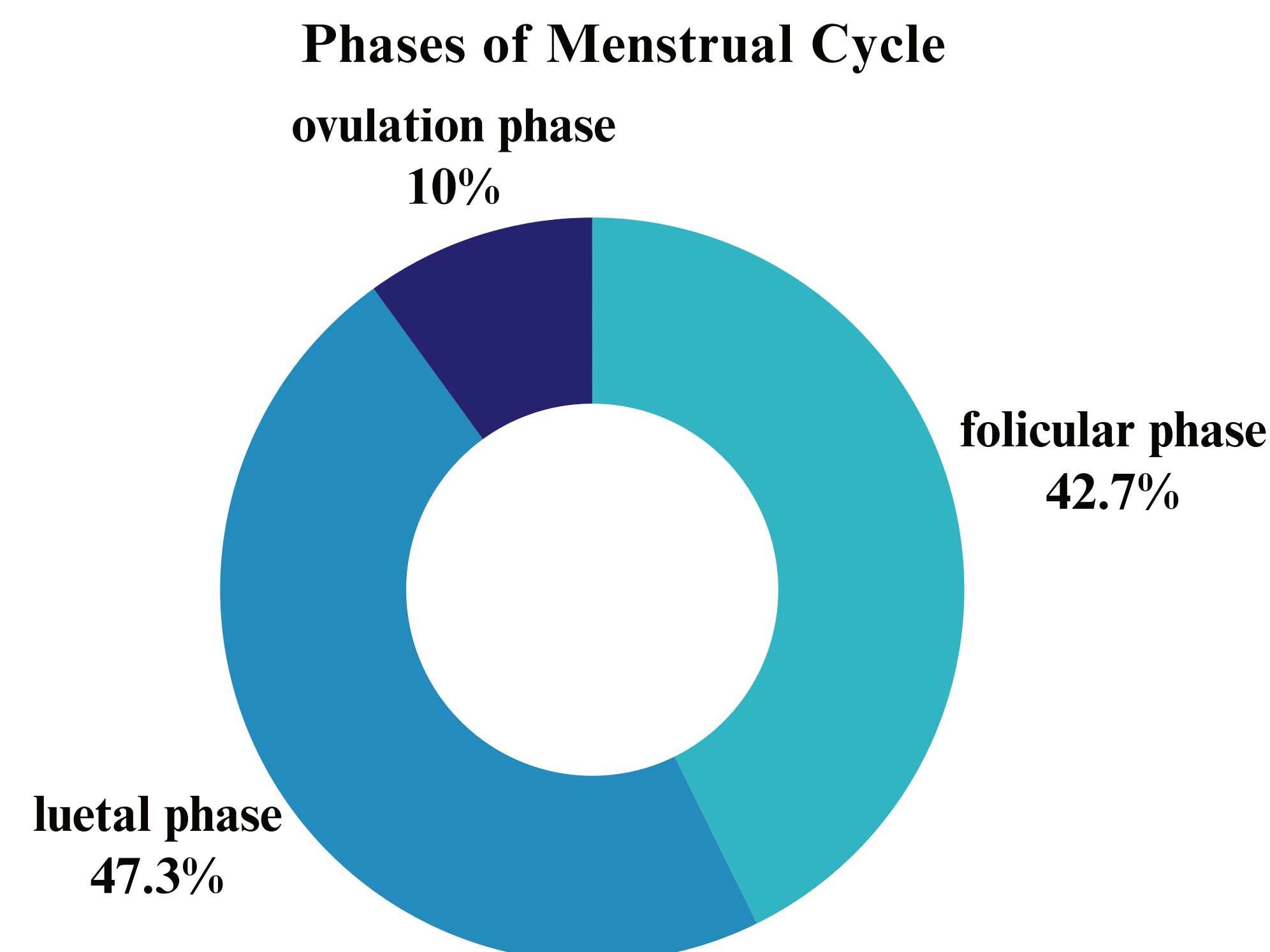
Framework



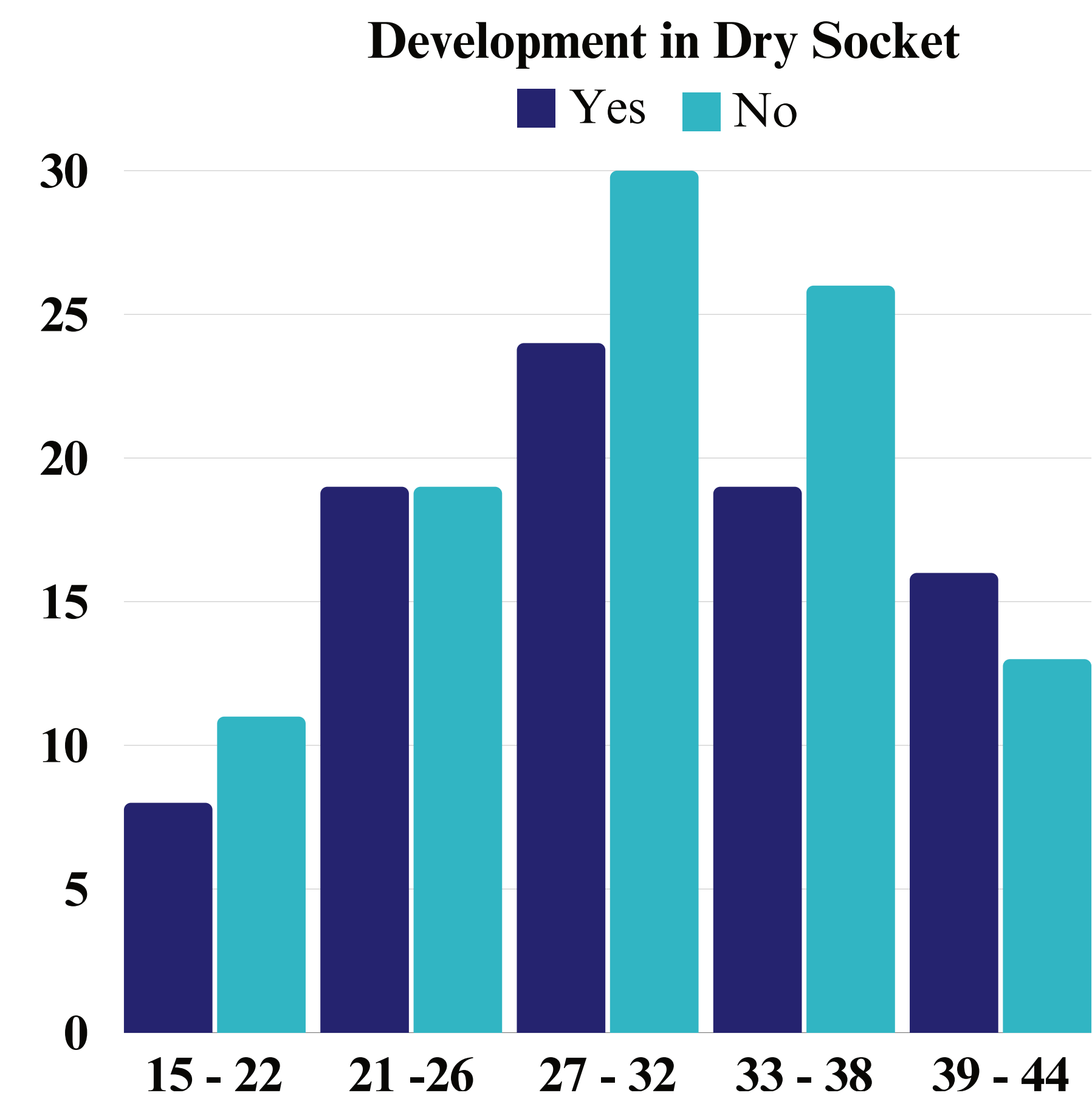
Conclusion

In conclusion, our research elucidates a significant interplay between contraception methods and menstrual cycle phases in influencing dry socket occurrence, emphasizing the importance of considering both factors in postoperative care.

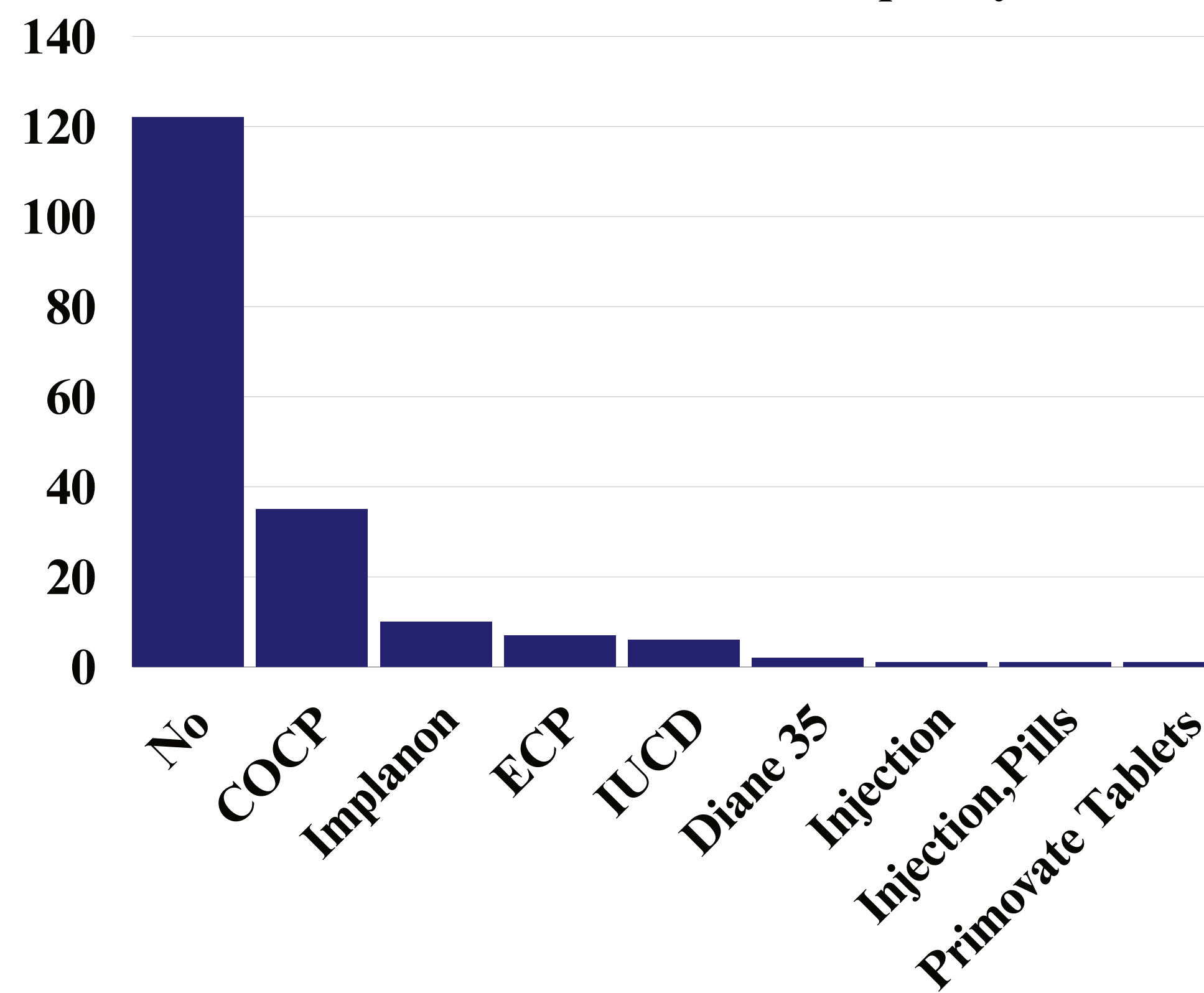
Results



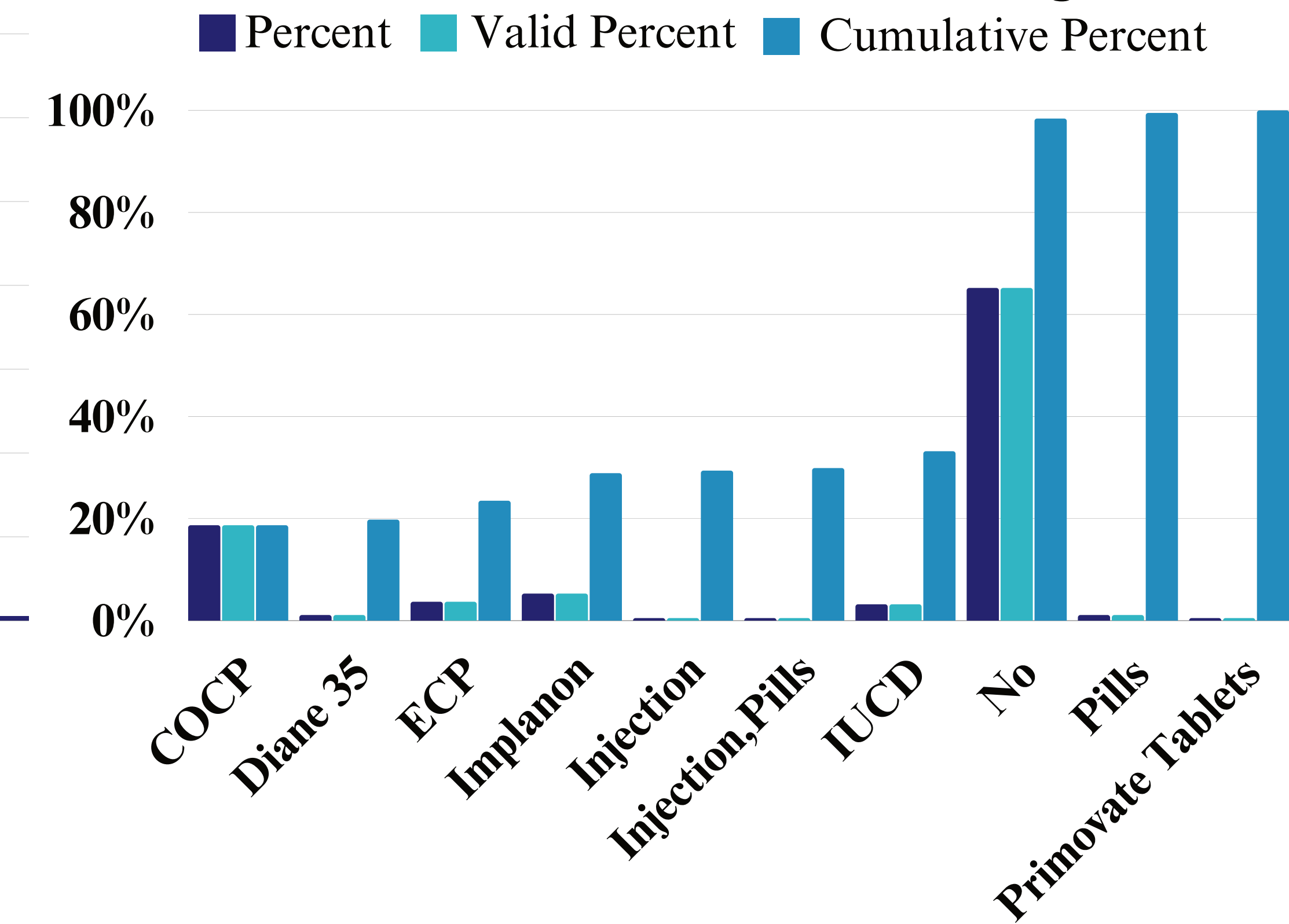
The graph highlights a clear correlation between menstrual cycle phases and dry socket incidence, with the follicular phase exhibiting the highest followed by the luteal, and ovulation presenting the lowest occurrence.



Birth Control Method in Frequency



Birth Control Method in Percentages



The frequency graph underscores the dominance of oral contraceptives, while the percentage analysis reveals their significant prevalence, with valid and cumulative percentages providing a nuanced perspective on the overall distribution of birth control methods.

Chi Square Test

Effect	Likelihood Ratio Tests			
	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	107.864a	.000	0	.
Age	108.694	.830	1	.362
Present Cycle Phase	194.536	86.672	2	.000
Birth control Method	130.435	22.571	9	.007

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

References

1. Taberner-Vallverdú M, Sánchez-Garcés M, Gay-Escoda C. Efficacy of different methods used for dry socket prevention and risk factor analysis: A systematic review. *Medicina oral, patología oral y cirugía bucal*. 2017;22(6):e750-e8.
2. Garcia AG, Grana PM, Sampedro FG, Diago MP, Rey JMG. Does oral contraceptive use affect the incidence of complications after extraction of a mandibular third molar? *British Dental Journal*. 2003;194(8):453-5.
3. Kolokythas A, Olech E, Miloro M. Alveolar osteitis: a comprehensive review of concepts and controversies. *International journal of dentistry*. 2010;2010:249073.
4. Blondeau F, Daniel NG. Extraction of impacted mandibular third molars: postoperative complications and their risk factors. *Journal (Canadian Dental Association)*. 2007;73(4):325.
5. Ogata Y, Hur Y. A higher incidence of dry socket may be related to the use of oral contraceptives after impacted mandibular third-molar extraction. *Journal of the American Dental Association (1939)*. 2016;147(10):840-2.