## عنوان مقاله:

An assessment of the anatomical variability and contributing factors of female pelvis shape using principal component analysis

## محل انتشار:

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## نویسنده:

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## خلاصه مقاله:

Background & aim: Pelvic shape has important effects on obstetrical outcomes. Therefore, this study aimed to determine the etiologic factors that contribute to the formation of female pelvis and describe its variability. Methods: This study was conducted on 131 women referring to Saint Joseph Hospital, Marseille, France, from March 29, 2011, to December 10, 2013. These women underwent a pelvic scan, and then completed a questionnaire to assess their exposure to several environmental influences, including adolescent physical activity, mode of acquiring an erect posture, diet, birthplace, socioeconomic status, presence of a spinal disorder, and age. A total of 43 pelvic variables were measured. Pelvic variability was analysed using principal component analyses (PCAs). Only the first two components of the PCA were analysed in this study. Results: Based on our results, the age of acquisition of erect posture was not associated with any pattern of pelvic variability. In addition, diet found to have no effect on the inlet shape. Spinal disorders, age, and physical activities did not exert any impact on pelvic shape. Geographic origin was found to be the only factor related to specific pelvic patterns. Conclusion: The pelvic shape variability of our study population was not explained by the four categories previously proposed by Cadwell and Moloy in 1993. It is recommended that midwife teachers should be more cautious about adherence to this classification. Geographic origin seemed to be related to different pelvic shape patterns, suggesting the effect of the neutral population history in pelvic variability.

## کلمات کلیدی:

Pelvis, Female, Diet, Posture, principal component analysis