

Contraception and Depression in Baghdad, Iraq:

A Preliminary Report

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Abstract:

Background: The use of contraceptives was recorded to be high in Iraq, as family planning became important to deal with the highly increasing population. No data is available about the relation between the use of contraceptives and mental health.

Aims: to report on depression among Iraqi women using contraceptives

Subjects and methods: A total of 139 married women using contraceptives were included in the study for the period 2nd January to 30th November, 2014. The sample was recruited from the gynecology outpatient clinic of Baghdad Teaching Hospital. Socio-demographic and clinical data were obtained and Beck Depression Inventory II was used to rate depression.

Results: Sixty three (63.3%) of women have depressive syndrome. There was no significant association between type of contraception and depression

Conclusion: Depression is common among women using contraception.

Key words: Contraception, Depression, Baghdad, Iraq

Introduction:

One of the major problems in Iraq is the increasing population growth similar to other developing countries. Family planning services is the key to manipulate population growth, women and children health, and human rights ¹.

In Iraq, Ministry of Health (MoH) had neglected family planning services in the last decades of the 20th century ^{2,3}. Recently published data on using contraceptives showed rates of 53% ⁴ and 65.1% ⁵. Health reasons and side effects are on the top list of nonuse and discontinuation of family planning ^{4,6}. One of the important side effects

of contraception is mood changes and depression⁷. Studies worldwide had been contradictory on the association between mood disorders and use of contraception. Although some early studies had revealed that use of hormonal contraception is associated with higher levels of depression⁸, modern studies had revealed the opposite⁹. Depression in women at the childbearing age is two times more common than men and this was attributed to hormonal factors¹⁰. This had drawn attention towards a relationship between depression and use of contraception.

Publishing on contraception had started in Iraq. However, no data on depression that results from the use of contraception was published. This study was carried out to report depression among Iraqi women using contraception.

Material and methods

A total of 139 married women were included in this study for the period from 2nd January to 30th Nov., 2014. Women in the child bearing age who were using contraception for one year or more and who have no history of mental disorder and no current medical or gynecological disease were included in this study. The sample was recruited from the

gynecology outpatient clinic of Baghdad Teaching Hospital. A questionnaire was used and it was constructed of three parts; the first part is for socio-demographic data (age, year of marriage, occupation, educational level, residence, number of rooms and persons in the house ...etc). The second part includes questions about contraception (type of contraception, duration of use, reason for use, the previous use of contraception, and few questions on history of depression or any other mental illness before the use of contraception. The third part was Beck Depression Inventory-II (BDI-II)¹¹, which was used to detect the presence and severity of depression. Each item is rated on a 4-point Likert-type scale. Scores of 0 to 13 denote minimal depression, scores of 14 to 19 denote mild depression, scores of 20 to 28 denote moderate depression, and scores of 29 to 63 denote severe depression¹¹. Ethical considerations were done. Women were informed about the study before giving their consent and confidentiality precautions were considered.

Associations between depression and contraception, depression and other factors were tested out by using chi square and Fisher's tests accordingly.

Results:

Number of patients who responded to the questionnaire was 139. Age was 32.7 ± 6.2 years. Duration of contraception was 2.8 ± 3.3 years. Sixty three (63.3%) women were revealed to have depressive syndrome. There was no significant association between type of contraception and depression (P value=0.9). The results are expressed in the tables 1 and 2.

Table 1: Type of contraception and depression

Contraception method	Depressed No (%)	Non- depressed No (%)	Total
Oral contraceptives	45 (60.0)	30 (40.0)	75
Injection	27 (67.5)	13 (32.5)	40
Intrauterine contraceptive device	7 (63.6)	4 (36.4)	11
Condom	6 (66.7)	3 (33.3)	9
spermicidal	4 (50.0)	2 (50.0)	6
Total	87 (63.3)	52 (36.7)	139

$\chi^2 = 0.9$, d.f.=4, p = 0.91

Table 2: Crowding Index and depression.

Crowding Index	Depressed No. (%)	Non-depressed No. (%)	Total
< 2	36 (67.9)	17 (32.1)	53
≥ 2	52 (60.5)	34 (39.5)	86
Total	88	51	139

P =0.3

Discussion:

The age of the studied women was 32 ± 6.2 years. It is inconsistent with that of another study in Basrah, Iraq, which showed younger age group. The difference might be explained by the difference in sociocultural factors in these two

cities, sampling methods (household in Basrah and hospital based study in Baghdad), sample size and economic status. In southern Iraq, girls marry shortly after puberty and become pregnant shortly after marriage^{12,13}. It was reported that

there are large differences among Iraqi governorates in fertility ¹.

Short duration of use of contraception was noticed (2.8 ± 3.3 years). This finding might be a reflection to the trend of fertility in Iraq¹⁴. Wars (Iraqi Iranian war, 1991 Gulf war and 2003 Gulf war), sanctions, civil war and widespread violence might influence trend of fertility in Iraq. Several articles documented civil war and wide spread violence ¹⁵⁻¹⁷. In the line of that in literature ^{3,4}, the use of contraception methods in which hormonal contraception was the most commonly used method.

High prevalence of depression among women using contraception (63.3%) was noticed. This finding is in contrast with modern studies^{9,10}. High prevalence of depression in Iraq ^{18,19} might contributed to this finding. The high prevalence of depression is attributed to the tragic situation in Iraq ¹⁸⁻²⁰ (consequences of wars and widespread violence).

The study revealed that there was no significant association between type of contraception and depression ($p = 0.9$). This finding is in agreement with that of other workers ²¹⁻²³. Depression is attributed to lifestyle of women rather than the use of contraceptives. In conclusion: depression was common among women using contraception. No role for contraception in developing depression among Iraqi women was found.

References:

1. Iraq National Population Commission (INPC). State of Iraq population 2010. UNFPA 2011.
2. Cleland J, Bernstein S, Ezeh A, Faundes A, Glasider A, Innis J. Family planning: the unfinished agenda. *The Lancet* 2006; 368:1810-1827.
3. Agha SY, Rasheed BO. Family planning and unmet needs among Iraqi Kurds. *East mediterr Health J* 2007; 13:1382-1391.
4. Ebrahim SM, muhammed NK. Knowledge, attitude and practice of family planning among women in Basrah city south of Iraq. *M J B U* 2011; 29: 70-76.
5. Iraq Multiple indicator cluster survey. 2006.
6. Ellervick C, Kventy J, Christensen KS, Vestergaard M, Bexh P. Prevalence of depression, quality of life and antidepressant treatment in Danish general Suburban population study. *Nord J Psychiatry* 2014; 68:507-512.
7. Ott MA, Shew ML, Ofner S, Tu W, Fortenberry JD. The influence of hormonal contraception on mood and sexual interest among adolescents. *Arch Sex Behav.* 2008;37(4):605-13.
8. Anne Lewis and MasudHoghughi: An Evaluation of Depression as a Side Effect of Oral Contraceptives *Brit. J. Psych* (1969), 115, 697-701
9. Keys KM, Cheslack-Postava K, Westhoff C, et al.: Association of Hormonal Contraceptive Use with Reduced Levels of Depressive Symptoms: A National Study of

- Sexually Active Women in the United States. *Am J Epidemiol* 2013.
10. Simonds SL. Depression and women: an integrative treatment approach. New York: Springer Publishing Company; 2001.
 11. Wu PC. Longitudinal measurement invariance of Beck Depression Inventory II in early adolescents. *Assessment* 2015. Pii: 107319111560894.
 12. UNICEF. Early marriage. Child spouses. *Innocent Digest*. No. 7. 2001.
 13. Avarosis J. Iraq wants to lower marriage age to 9, legalize marital rape, and ban women from leaving home. *America Blog*. <http://americablog.com/2014/04/iraq-wants-lower-marriage-age-9-legalize-marital-rape-ban-women-leaving-home.html> (accessed on 20 Sept. 2016).
 14. Fayyed NH. Fertility in Iraq: trends, evolutions and influential factors. Research paper. Center of Research and Policy studies. 2012
 15. Iraqi Family Health Service Survey Group. Violence related mortality in Iraq from 2002 to 2006. *N Engl J Med* 2008; 358:484- 493.
 16. Burnham G, Lafta R, Doou S, Robert L. Mortality after 2003 invasion of Iraq: a cross- sectional cluster sample survey. <http://www.thelancet.com>. Published online Oct. 11. 2006.
 17. Fearson JD. Iraq's civil war. *Foreign Affairs* 2007; 86: 2-16
 18. Al-Hamzawi AO, Bruffaerts R, Bromet EJ, AlKhafaji AM, Kessler RC The Epidemiology of Major Depressive Episode in the Iraqi General Population. 2015;10 doi: [10.1371/journal.pone.0131937](https://doi.org/10.1371/journal.pone.0131937)
 19. Kessler RC. Epidemiology of women and depression. *J affect Disord* 2003; 74: 5-13
 20. Jamil H, Farraq M, Hakim-Larson J, Kafaji T, AbdulKhaleq H, Hammod A. Mental health symptoms in Iraq refugees: posttraumatic stress disorder, anxiety and depression. *J Cult Divers* 2007;14: 19-23
 21. O'Connell K, Davis AR, Kerns J: oral contraceptives: side effects and depression in adolescent's girls. *Contraception* 2007; 75: 299-304.
 22. Milsom I. Contraception and family planning. New York: Elsevier Health sciences 2006
 23. Goldzieher JW, Noses L, Averkin E, Scheel C, Taber BZ. Nervousness and depression attributed to oral contraceptive: double blind, placebo controlled study. *Am J ObstetGynecol* 1971; 111: 1013-1020.

منع الحمل والاكتئاب في بغداد – العراق : تقرير تمهيدي

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الخلاصة :

ان استخدام طرق منع الحمل كوسيلة لتنظيم العائلة شائع في العراق. لا توجد معلومات كافية عن تأثير هذه الطرق على الصحة النفسية للنساء. الهدف من الدراسة هو ملاحظة حالات الاكتئاب لدى النساء العراقيات اللواتي يستخدمن مختلف طرق منع الحمل. تم دراسة 139 امرأة متزوجة من مراجعات العيادة الخارجية في مستشفى بغداد التعليمي باستخدام قائمة بيك لتحديد حالات الاكتئاب للفترة ما بين الثاني من كانون الثاني والثلاثين من تشرين الثاني عام 2014. اظهرت الدراسة بأن 63.3 بالمائة من النساء اللواتي تم اجراء الدراسة عليهن يعانين من حالات اكتئاب وأنه لا توجد اي علاقة بين طريقة منع الحمل وحالات الاكتئاب.