

**AWARENESS OF THE HEALTH IMPLICATIONS OF UNSAFE ABORTION AMONG  
SECONDARY SCHOOL ADOLESCENTS IN IHIAGWA COMMUNITY, IMO STATE,  
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**ABSTRACT**

**Aims:** To ascertain the level of awareness of the physical health implications of unsafe abortion among secondary school adolescents in the study area; to elicit the level of awareness of the psychological health implications of unsafe abortion among secondary school adolescents in the study area; to assess the level of awareness of the social health implications of unsafe abortion among secondary school adolescents in the study area. There is also the null hypothesis which states that awareness of health implications of unsafe abortion among secondary school adolescents does not differ by gender. **Study Design:** A descriptive survey design was used. **Place and Duration of Study:** Ihiagwa Community in Imo State, Nigeria, between January to February 2015. **Methodology:** The sample size was 300 (males 150 and Females 150). A structured, validated and reliable questionnaire ( $r = 0.78$ ) was used as the instrument for data collection. **Results:** The result showed that majority of the respondents (70.6%) were within the age range of 14-16 years. In religious affiliation, 114 (38%) were Roman catholics followed by 92 (30.7%) Pentecostals. Grand mean of 177 (59%) respondents were aware of various physical health implications of unsafe abortion while 123 (41%) were not aware. Grand mean of 193 (64.3%) respondents were aware of various psychological health implications while 107 (35.7%) were not aware. Majority, grand mean of 205 (68.3%) respondents were aware of social health implications of unsafe abortion while 95 (31.7%) were not aware. The results in tables 5 and 6 found out if the awareness of health implications of unsafe abortion among secondary school adolescents differ by gender. When exposed to statistical analysis using chi-square, it was discovered that chi-square table value of 5.99 was greater than the calculated chi-square value of 0.54 and the null hypothesis which stated that awareness of the health implications of unsafe abortion does not significantly differ by gender was accepted. **Conclusion:** The general grand mean of the adolescents unaware of the health implications of unsafe abortion were 108 (36%) which if they were faced with the choice of unsafe abortion, would have gone through it before realizing the dangers involved. This is a source of worry considering the consequences of the level of ignorance. Thus a comprehensive sex education is required among these adolescents before they fall prey to the dangers of unsafe abortion.

**KEYWORDS:** Awareness, Health Implications, Unsafe abortion, Secondary Schools, Adolescents, Ihiagwa Community, Imo State.

**INTRODUCTION**

Reproductive health is a crucial part of general health and a central feature of human development. It is a state of complete physical, mental and social well-being in all matters relating to the reproductive system at all stages of life.<sup>[1]</sup>

Good reproductive health implies that people are able to have a satisfying and safe sex life, the capability to reproduce and the freedom to decide when and how often to do so. It is a reflection of health during childhood and crucial during adolescence and adulthood. One of the major reproductive health issues encountered by the adolescents is unsafe abortion.

Unwanted pregnancy and unsafe abortion currently pose some of the greatest challenges associated with women's reproductive health in Africa and can occur for numerous reasons. It may be the consequence of non-use of contraception, contraceptive failure or misuse of a method. Poor use of contraception may be based on the assumption (often erroneous) that the risk of pregnancy is low because the woman is too young or because one sexual encounter is insufficient to cause a pregnancy (a notion common among young adolescents).<sup>[2]</sup> Unwanted pregnancy can also result from sexual violence including rape.<sup>[3]</sup>

Each year, an estimated 210 million women throughout the world become pregnant and about one in five of them resort to abortion.<sup>[4]</sup> Abortion is the expulsion or removal of an embryo or foetus from the uterus at a stage of pregnancy when it is incapable of independent survival (at a time between conception and the 24<sup>th</sup> week of pregnancy).

There is evidence to suggest that historically, pregnancies were terminated through a number of methods including the administration of abortifacient herbs, the use of sharpened instruments, the application of abdominal pressure and other techniques. Out of 46 million abortions performed annually, 19 million are estimated to be unsafe.<sup>[4]</sup> Unsafe abortion is defined as a procedure for terminating a pregnancy performed by persons lacking the necessary skills or in an environment not in conformity with minimal medical standards, or both.<sup>[5]</sup> According to World Health Organization, the risk of death following unsafe abortion can be several hundred times higher than that of legal abortion.<sup>[5]</sup>

Unsafe abortion remains one of the most neglected sexual and reproductive health problems in the world today. An earlier study on sexual activity and contraceptive use among female adolescents, found that adolescent girls lack knowledge about sexual matters and contraception, which results in early pregnancy, increased risk of sexually transmitted infections, unsafe abortions, maternal morbidity and mortality.<sup>[6]</sup> Despite the social and cultural importance placed on child bearing in African society, unwanted pregnancies remain a source of concern within the family. This is more acute for adolescent girls who often become pregnant out of wedlock and in a bid to avoid facing judgment from their family and community, commonly resort to abortion as a way out. Unmarried adolescents also go for abortion to cover their infidelity, to remove shame on the family, to keep their jobs, to avoid the birth of unwanted babies and to continue their educational careers.<sup>[7]</sup>

In countries with restrictive abortion laws, due to the absence of legal abortion services, women attempt to end unwanted pregnancies through clandestine (secret) means. Such women terminate pregnancies by themselves and sometimes in collaboration with quacks in unhygienic environment.<sup>[8]</sup> The techniques used in most cases are likely to cause morbidities such as hemorrhage, infections or even outright death.<sup>[9]</sup> In Africa particularly, the picture is of increasing hospital admissions for abortion complications and a distressingly high rate of maternal morbidity and mortality due to abortion. Fifty nine (59%) of all unsafe abortions in Africa are estimated to occur in women aged less than 25 years. Mortality is frequently highest among adolescents since they are slow to recognize the pregnancy, are least able to afford appropriate care and are the most vulnerable to receiving poor quality care and using ineffective methods.<sup>[10]</sup>

Unsafe abortion is a major public health and medical problem in Nigeria. It is one of the top causes of maternal morbidity and mortality in Nigeria.<sup>[11]</sup> Despite the high rates of morbidity and mortality associated with unsafe abortion, the Nigerian government has taken little action to address the problem.

Considering the huge contribution of unsafe abortion to the very high maternal mortality in most countries, it is apparent that efforts to reduce maternal mortality and improve maternal health without addressing the issue of unsafe abortion will not succeed. Okonofua et al opined that ending the silent pandemic of unsafe abortion is an urgent public health and human rights imperative.<sup>[12]</sup> A study also found that one third of women obtaining abortions were adolescents, hospital based studies showed that up to 80 percent of Nigerian patients with abortion related complications were adolescents and this is a public health problem.<sup>[13]</sup> Thus it became necessary to assess the awareness of the health implications of unsafe abortion among secondary school adolescents in Ihiagwa, Owerri West Local Government Area of Imo State, Nigeria using the following three objectives and one hypothesis. To ascertain the level of awareness of the physical health implications of unsafe abortion among secondary school adolescents in the study area; to find out the level of awareness of the psychological health implications of unsafe abortion among secondary school adolescents in the study area; to assess the level of awareness of the social health implications of unsafe abortion among secondary school adolescents in the study area, and the null hypothesis which states that awareness of health implications of unsafe abortion among secondary school adolescents does not differ by gender.

## METHODOLOGY

A descriptive survey design was used and approval was given by research ethical committee of Federal University of Technology Owerri, Imo State, Nigeria. The Principals of the schools used for the study and the respondents also gave their consent for the study. The study population were Secondary School adolescents within the ages of 11-19 years in Ihiagwa, Owerri West Local Government Area of Imo State. A Multistage sampling technique was used. Two out of the three secondary schools in Ihiagwa were randomly selected, (FUTO International Secondary School Owerri (FISO) and Ihiagwa Secondary School). Their senior students (Senior Secondary1 (SS1), Senior Secondary 2 (SS2) and Senior Secondary 3 (SS3)) were used for the study. The population of SS1 to SS3 students in the two secondary schools used for the study was one thousand and five (1005)

The sample size for the study consisted of three hundred (300) adolescents which were randomly selected from the study area. At FISO, SSI had 3 streams of classes and 20 students were randomly sampled from each stream giving a total of sixty (60), SS2 had 4 streams of classes

and 20 students were randomly sampled from each stream giving a total of eighty (80) students and SS3 had 2 streams of classes and 20 students were randomly sampled from each stream giving a total of 40 students. Total number sampled at FISO were 180 students (90 boys and 90 girls). In Ihiagwa secondary school, SSI, SS2 and SS3 classes had 2 streams of classes each and 20 students were randomly sampled from each stream giving a total of one hundred and twenty (120) students (60 boys and 60 girls) sampled from Ihiagwa Secondary School. Total number from the two secondary schools that were used for the study was 300 adolescent students. The instrument used was the validated and reliable questionnaire. Section A sought background information of respondents while Section B sought information on respondents awareness of health implications of unsafe abortion. There was a trial test of the instrument on twenty students from the secondary school that was not used for the main study. The split half reliability technique was adopted in testing the reliability of the instrument. The coefficient reliability of  $r = 0.78$  was got indicating that the instrument was reliable. The study lasted for a period of two months and data analysis done using descriptive statistics and chi-square.

## RESULT

The result in table 1 showed the distribution of the respondents by age, gender and religion. The majority of the respondents, males 94(31.3%) and females 118 (39.3%) were in age group 14-16 years followed by age group 17-19 years, males 50 (16.7%) and females 26 (8.7%). The least was age group 11-13 years, 6 (2%) respectively. The distribution of the respondents by their religious affiliations were Roman Catholics 114 (38%), Pentecostals 92 (30.7%) and Anglicans 58 (19.3%) while Baptist and other denominations had the least number of respondents with 16(5.3%) and 20 (6.7%) respectively.

The result in table 11 showed that 177 (59%) of the respondents were aware of the physical health implications of unsafe abortion while 123 (41%) were unaware. 240 (80%) respectively were aware of death and increased risk of infertility as physical health implications of unsafe abortion while 202 (67.3%) were aware of haemorrhage as physical health implications. Only 116 (38.7%) knew that unsafe abortion increases the risk of cervical, ovarian and liver cancer. Also, 202(67.3%) knew that hemorrhage is a physical health implication of unsafe abortions. While 174 (58%) were

unaware that the newborn could be handicapped due to foetal abnormality in later part of the pregnancy.

The results in table III showed that 193 (64.3%) of the respondents were aware of the psychological health implications of unsafe abortion while 107(35.7%) were unaware of these health implications. 222 (74%) knew about anxiety and depression and 244 (81.5%) knew about guilt as psychological health implications of unsafe abortion while only 138 (46%) knew that unsafe abortion can cause loss of pleasure from sex.

The results in table IV showed that 205 (68.3%) of the respondents were aware of the social health implications of unsafe abortion while 95 (31.7%) were unaware of the social health implications. Isolation had the highest awareness of 82% followed by set back in academic pursuit which had 81.3% awareness.

From the results in table V, it can be deduced that the male respondents (70%) were slightly more aware of the social health implications of unsafe abortion than the female respondents (66.7%) while the female respondents were more aware of the physical health implications having 62% awareness as against 56% of the male respondents while the females were more aware of psychological health implications of unsafe abortion by 0.7%.

## HYPOTHESIS

$H_0$ : The awareness of health implications of unsafe abortion among secondary school adolescents does not differ by gender.

The result in table VI showed that the

Calculated  $X^2$  value = 0.54

Level of significance ( $\alpha$ ) = 0.05

Degree of freedom = (column-1) (Row-1)

Df = (C-1) (R-1)

= (3-1) (2-1)

= 2 x 1 =2

Critical value of  $X^2$  from table = 5.99

**Decision Rule:** Since  $X^2$  table value of 5.99 is greater than the calculated value of 0.54, we fail to reject the null hypothesis and conclude that the awareness of health implications of unsafe abortion does not significantly differ by gender.

## TABLES

**Table 1: Distribution of the Respondents by Age, Gender and Religion.**

S/N	VARIABLES	GROUP	MALE		FEMALE		TOTAL	
			Frequency	%	Frequency	%	Frequency	%
AGE		11-13	6	2	6	2	12	4
		14-16	94	31.3	118	39.3	212	70.7
		17-19	50	16.7	26	8.7	76	25.3
		TOTAL	150	50	150	50	300	100
RELIGION		Roman Catholic	54	18	60	20	114	38
		Pentecostal	46	15.3	46	15.3	92	30.7

	Anglican	32	10.7	26	8.7	58	19.3
	Baptist	10	3.3	6	2	16	5.3
	Others	8	2.7	12	4	20	6.7
	TOTAL	150	50	150	50	300	100

**Table II: Distribution of the Respondents by their Awareness of Physical Health Implications of Unsafe Abortion.**

Physical Health Implications	Aware	Unaware	Total
Uterine perforation (hole or break in the uterus)	164 (54.7%)	136(45.3%)	300(100%)
Increased risk of infertility	240(80%)	60 (20%)	300 (100%)
Hemorrhage (bleeding)	202(67.3%)	98(32.7%)	300 (100%)
Cervical injury (Cervical tear)	210 (70%)	90 (30%)	300 (100%)
Death	240 (80%)	60 (20%)	300 (100%)
Endometritis (infection of the lining of the uterus)	160 (53.3%)	140(46.7%)	300(100%)
Chronic abdominal pain	176 (58.7%)	124 (41.3%)	300 (100%)
Increased risk of cervical, Ovarian and liver cancer	116(38.7%)	184(61.3%)	300 (100%)
Subsequent pre-term Deliveries and other Complications of labor	134 (44.7%)	166 (55.3%)	300 (100%)
Handicapped newborn due to foetal Abnormalities in later pregnancies	126 (42%)	174 (58%)	300 (100%)
<b>Grand mean</b>	177 (59%)	123 (41%)	300 (100%)

**Table III: Distribution of the Respondents by their Awareness of Psychological Health Implications of Unsafe Abortion.**

Psychological health Implications	Aware	Unaware	Total
Anxiety	222(74%)	78(26%)	300(100%)
Guilty (unhappy feeling of Having done something wrong)	244 (81.3%)	56 (18.7%)	300(100%)
Depression	222(74%)	78 (26%)	300(100%)
Loss of Sexual pleasure	138 (46%)	162 (54%)	300(100%)
Psychosis (Mental disorder)	139 (46.3%)	161(53.7%)	300(100%)
Reduced maternal bonding With children born Subsequently	156 (52%)	144 (48%)	300(100%)
Difficulty in concentrating	235 (78.3%)	65 (21.7%)	300(100%)
Flashbacks (recurrence of the Event)	226 (75.3%)	74 (24.7%)	300(100%)
Sleep disorders	189 (63%)	111 (37%)	300(100%)
Suicidal thoughts and Attempts	166 (55.3%)	134 (44.7%)	300(100%)

<b>Grand mean</b>	193 (64.3%)	107(35.7%)	300(100%)
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**Table IV: Distribution of the Respondents by their Awareness of Social Health Implications of Unsafe Abortion**

<b>Social health Implications</b>	<b>Aware</b>	<b>Unaware</b>	<b>Total</b>
Alcohol and drug abuse	202 (67.3%)	98 (32.7%)	300 (100%)
Increased tendency Towards violence	169 (56.3%)	131 (43.7)	300 (100%)
Promiscuous life style (having Many sexual partners)	172 (57.3%)	24.8 (42.7%)	300 (100%)
Increased risk of seeking multiple Abortion	161 (53.7%)	139 (46.3%)	300 (100%)
Set back in academic pursuit	244 (81.3%)	56 (18.7%)	300 (100%)
Marital problems	204 (68%)	96 (32%)	300 (100%)
Isolation (withdrawal from Friends and previous activities)	246 (82%)	54 (18%)	300 (100%)
Child abuse (due to hatred for children)	206 (68.7%)	94 (31.3%)	300 (100%)
Self-destructive behaviour (eg smoking)	207 (69%)	93 (31%)	300 (100%)
Reduced productivity	235 (78.3%)	65 (21.7%)	300 (100%)
<b>Grand mean</b>	205(68.3%)	95 (31.7%)	300 (100%)

**Table V: Distribution of the Respondents by their Awareness of Health Implications of Unsafe Abortion by Gender Difference**

<b>Health implications</b>	<b>Male</b>		<b>Female</b>	
	<b>Aware</b>	<b>Unaware</b>	<b>Aware</b>	<b>Unaware</b>
Physical health implications	84 (56%)	66(44%)	93(62%)	57(38%)
Social health implications	105(70%)	45(30%)	100(66.7%)	50(33.3%)
Psychological health	96 (64%)	54(36%)	97(64.7%)	53(35.3%)

**Table VI: Observed and Expected Frequencies of Awareness of Physical, Psychological and Social Health Implications of Unsafe Abortion.**

<b>Gender</b>	<b>Physical health implications</b>	<b>Psychological health implications</b>	<b>Social health Implications</b>	<b>Total</b>
Male	84 (87.7)	96 (95.7)	105 (101.6)	285
Female	93 (89.3)	97 (97.3)	100 (103.4)	290
<b>Total</b>	177	193	205	575

Figures in parenthesis are the expected frequencies

## DISCUSSION OF FINDINGS

Majority of the respondents 212 (70.7%) fall within the age range of 14-16 years while majority 114 (38%) were Roman Catholics followed by Pentecostals 92 (30.7%).

The results in table II revealed that 177 (59%) of the respondents were aware of the physical health implications of unsafe abortion while 123 (41%) were unaware. Various studies had similar results on physical health implications of unsafe abortion.<sup>[13,14,15&16]</sup> From

the result, number of secondary school adolescents 123 (41%) were not aware of some of the physical health implications of unsafe abortion, danger signals and this calls for health education which will enable them to avoid unsafe abortion.

However, physical health implications such as increased risk of infertility, death and cervical injury were well known as 240 (80%), 240 (80%) and 210 (70%) respectively acknowledged them. The work in Illorin, Nigeria, among public servants also found death as the most recognized complication of unsafe abortion.<sup>[17]</sup>



Results in table III showed that 193 (64.3%) were aware of psychological health implications of unsafe abortion. This is in line with the studies which stated that abortion whether safe or unsafe is associated with psychological health implications.<sup>[18, 19 & 20]</sup> For instance, women who have undergone abortion can experience loss of pleasure from intercourse, increased sexual pain, an aversion to sex and/or males in general.<sup>[21]</sup> A study also found out that adolescents aged 15-18 who underwent abortion were twice as likely to experience suicidal ideation when compared to adolescents of the same age who had never been pregnant or who had been pregnant but chose not to have an abortion.<sup>[22]</sup>

Results in table IV showed that 205(68.3%) were aware of the social health implications of abortion, while 95(31.7%) were unaware. It is worthy of note that most of the respondents recognized isolation (withdrawal from friends and previously enjoyed activities) as a social health implication of abortion. This isolation is mostly due to stigmatization and corresponds to Kumar's opinion that stigmatization is a recognized contributor to maternal morbidity and mortality from unsafe abortion.<sup>[23]</sup> It was also stated that women often suffer post-abortion complications in isolation since some communities describe women who have had abortion as infected and evil and that this leads to delayed care and potentially more severe complications including death.<sup>[24]</sup> Two hundred and two (67.3%) of the respondents also recognized alcohol and drug abuse as a social health implication of abortion. This is in line with the work which stated that young women who aborted had a significantly high rate of drug dependence than young women who had never been pregnant and pregnant women who carried to term<sup>[19]</sup> and this reduces productivity and increases their risk of seeking multiple abortion.<sup>[25]</sup> It was further stated that women who have undergone abortion have an increased risk of developing a promiscuous lifestyle, experience relationship problems and abuse or neglect subsequent children.<sup>[21]</sup>

The results in tables V and VI found out if the awareness of health implications of unsafe abortion among secondary school adolescents differ significantly by gender. When exposed to statistical analysis using chi-square, it was discovered that chi-square table value of 5.99 was greater than the calculated chi-square value of 0.54, thus we accept the null hypothesis which stated that awareness of the health implications of unsafe abortion does not significantly differ by gender.

## CONCLUSION

Based on the findings, it can be deduced that the secondary school adolescents in Ihiagwa, Imo State, Nigeria were more aware of the social health implications of unsafe abortion than their physical and psychological implications. However, 123 (41%), 107(35.7%) and 95(31.7%) of the adolescents were respectively unaware of the physical, psychological and social health implications of unsafe abortion while a

general average as high as 108 (36%) were unaware which means that if they were faced with the choice of unsafe abortion, they would have gone through it before realizing the dangers involved. This is a source of worry considering the consequences of the level of ignorance. Thus a comprehensive sex education is required among these adolescents before they fall prey to the dangers of abortion.

**ETHICAL CLEARANCE/CONSENT:** A descriptive survey design was used and approval was given by research ethical committee of Federal University of Technology, Owerri Imo State, Nigeria. The School Principals and the respondents gave their consent for the study.

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## CONFLICTING INTERESTS

Authors have declared that no conflicting interests exist.

## REFERENCES

1. World Health Organization , Reproductive Health definition, Retrieved May 15, 2015 from Reproductive Health, [www.google.com](http://www.google.com)
2. Adewole IF & Okonofua FE. Terminating an unwanted pregnancy: The economic implications in Nigeria, *Journal of Obstetrics and Gynaecology*, 2002; 22(4): 436-437.
3. Alan Guttmacher Institute. Sharing responsibility. Women, society and abortion worldwide chart, 1999; 6.1: 43.
4. Ahman E & Shah I. Unsafe abortion differentials in 2008 by age and developing country region: High burden among young women. *Reproductive health matters*, 2012; 20(39): 169-173.
5. World Health Organization. From Concept to Measurement: Operationalizing World Health Organization's definition of Unsafe Abortion. *World Health Organization Bulletin*, 2014; 92: 155.
6. Okpani A. and Okpani JU. Sexual activity and contraceptives use among female adolescents: A report from Port Harcourt Nigeria. In *African Journal of Reproductive Health*, 2000; 4(1): 41-47.
7. Bankole A, Singh S, Haas T. Reasons why women have induced abortion; evidence from 27 countries. *International family planning perspectives*, 1998; 24(3): 117-12.
8. Bankole A, Oye-Adeniran BA, Singh S, Adewole IF, Wulf D & Hussai R. *Unwanted pregnancy and Induced abortion in Nigeria:causes And consequences*.Guttmacher Institute, 2006; 4.
9. Ahiadeke C. Incidence of induced abortion in Southern Ghana. *International Planning perspective*, 2001; 27(2): 96-101.
10. World Health Organization. Unsafe abortion global and regional estimates of the incidence of unsafe

- abortion and associated mortality in 2003. 2007; 5<sup>th</sup> Edition. Geneva.
11. Henshaw S. K, Singh S., Oye-Adeniran B.A, Adewale I.F, Iwere W and Cuca YP. The incidence of induced abortion in Nigeria. *International family planning perspectives*, 1998; 24(4): 156-164.
  12. Okonofua F, Clifford O, Bisi A, Daru PH, Johnson A, *Critical Issues in Reproductive Health; Women's Experiences of Unwanted Pregnancy and Induced Abortion in Nigeria.*, 1999.
  13. Singh S. Hospital admission resulting from unsafe abortion: Estimate from 13 developing countries, *Lancet*, 2006; 368: 1987-1892.
  14. Ciganda C, Laborde A. "Herbal infusions used for induced abortion". *Journal of toxicology. Clinical toxicology*, 2003; 41(3): 235-239.
  15. Thorp JM, Harman KE, Shadigan E. Long-term physical and Psychological health consequences of induced abortion. Review of the evidence. *Obstetrical and Gynecological survey*, 2002; 58(1): 67-69.
  16. Remennick L.I. "Induced abortion as a cancer risk factor: A review of Epidemiological Evidence", *International Journal of Epidemiology*, 1999; 18(2): 300-304.
  17. Abdul IF, Anate M, Balogun OR, Oganija S, Fawole AA, Aboyeji AP, Public awareness of complications of unsafe abortion in Illorin, Nigeria. *Journal of Obstetrics and Gynaecology*, 2000; 15(4): 35-37.
  18. Ihediwa-Okoro BN. Post-abortion psychological sequelae: counseling for healthy living. A paper presented at the 32<sup>nd</sup> Annual National Conference of Counseling Association of Nigeria, Illorin. 2008; 26-30.
  19. Reardon DC, Coleman PK, cougle JR. Substance use associated with prior history of abortion and unintended birth; A nation cross sectional cohort study, *American Journal of Drug and Alcohol Abuse*, 2004; 26(6): 55-57.
  20. Coleman P.K & Nelson E.S. The quality of abortion decisions and college students reports of post abortion emotional sequelae and abortion attitudes. *Journal of social and clinical psychology*, 1998; 17: 425-442.
  21. Elliot Institute. "A list of major psychological sequelae of abortion" factsheet, 2000.
  22. Gissler M, Berg C, Bonvier-cole MH, Beukens P. Injury, Deaths, Suicides and Homicides Associated with Pregnancy, Finland 1987-2000. *European journal of public health*, 2005; 15(5): 461.
  23. Kumar A, Hessini L, Mitchell EM. Conceptualizing abortion stigma. *Culture, Health and Sexuality*, 2009; 37(11): 625-639.
  24. Lewandowski A, Linda K, Fanni K, Paschal A, Godfrey K. *International Journal of Gynaecology and Obstetrics*, 2012; 118: 167-171.
  25. Bradshaw Z and Slade P. The effects of induced abortion on emotional experiences and relationships, A critical review of the literature, clinical pathology review, 2003; 23: 948.