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Frequency of Suicidal Thoughts and Attempt in Pregnant Women Referred to Four Hospitals of Yazd City, Iran in 2011

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ABSTRACT

Introduction: Suicide is a conscious and voluntary act that a person ends him/her life by a life threatening and fatal act. Pregnancy is the most important and vital life stage for every woman. Because of the different stress in pregnancy as well as prevalence of psychiatric disorders such as depression, suicide risk during pregnancy is also available. We investigate the frequency of suicide attempt and Suicide thoughts of pregnant women in Yazd, a city in center of Iran.

Material and Methods: In this cross sectional study all of pregnant women that attending urban health centers of Yazd University of Medical Sciences in 2011 were the target population. Pregnant women (N=384) were selected after exclusion criteria applied. Beck suicide questionnaire for suicide was used to collect data.

Results: Suicidal thoughts was higher in women with unintended pregnancies (p=0.006). But women with the importance of child's gender did not differ significantly (p=0.513). In none of the groups there was an attempted suicide in the family. The frequency of suicidal thoughts in the group of women with malicious behavior during pregnancy was higher (p=0.004).

Conclusion: It is concluded that the causes of suicidal thoughts among pregnant women in city of Yazd is associated with the unwanted child. Planning to prevent unintended pregnancy can be effective in reducing these thoughts. Fortunately, no cases of suicide attempt were found in pregnant women under 24 and upper 32. Wider studies are recommended.

Keywords: *suicide thought, suicide attempt, pregnant women*

1. INTRODUCTION

Suicide is a global multifactorial concerning issue detected in all social classes of a community.[1] It is certainly considered as one essential issue in health system of every society. WHO has defined suicide as a consciously determined way taken by a person to end his/her life.[2]

According to published statistics by WHO, the global prevalence of suicide is 16 out of 100000. Investigations show suicide committal has followed a growing trend within the last 50 years for a rate of almost 60%.[3] Also it was shown that the trend is more dominant in women rather than men.[4] Physiologic-based reasons, female sex hormones as one top of all, have been proposed to explain this variance among men and women[5, 6]. Still, vast studies are strongly recommended.

Suicide can take place because of many underlying factors including cultural, social, genetic-base, biological, psychological, environmental and physiological as said. Still there is no critic report of number of appealed suicides, so the number of reported cases is believed to be under-estimated. According to WHO, these appealed suicide cases is about one million per a year.[7]

A study in England has shown that suicide committal is the reason for 10% of pregnant women death, while 86% of all these death could be prevented and is due to psychological issues of pregnancy time.[8] Right now the prevalence of suicidal thoughts and attempts to it among pregnant women is 25% and affects 22% of women of reproductive ages.[9]

For sure, pregnancy is one of the most important and fragile periods of every women life. Psychological health as well as a woman's peace and comfort of living environment are determining factors for mother and child's sound and safe birth. Pregnant women are a major group of psychic patients and issues like depression or even violence is common with them. In one study depression is reported in almost 70% of pregnant women. [10, 11]

In a study done by Asad et al in Pakistan, the prevalence of suicidal thoughts in pregnant women was evaluated. It was shown that women with a history of anxiety or depression or the ones with indecent or tense

living environment are more exposed to suicide. The study suggests that psychological services should become a necessary part of usual prenatal care.[12] There was another study done by Stallone et al to evaluate suicidal thoughts in women with poor socio-economic jobs in university of Colorado in America. In this study 2112 women with low-paid jobs in age range of 18 to 59 were randomly selected. The results show because better income for these women can provide them a better life quality as well as better medical care and better self-reassurance, it can reduce the risk of suicide in this pregnant women.[13] According to another study in Iran on 50 women who had committed suicide, romantic issues or marital problems had been diagnosed as a reason.[14]

Psychological disorders, dominantly depression are mostly seen in pregnant women. These women are mostly reluctant for any social interactions and mostly keep alone, of course this isolation could lead to suicidal thoughts.[15, 16] The rate of appealed suicides in pregnant women compared to non-pregnant is 1/20.[17]

As is shown in all studies, psychological issues can lead to deleterious thoughts of self-harming or attempts to suicide, even if not take place, the thought itself can have great negative impacts on pregnancy, delivery and prenatal cares. Considering the fact that we are in short of accurate data on pregnancy-related psychiatric disorders and so far not enough statistics is released on the subject, we made an effort within this study up to determine the prevalence of suicidal thoughts and attempts to it in pregnant women.

2. METHODS

In this descriptive cross sectional study, 384 pregnant women who had come to four health centers of Yazd, Shahid Beheshti, Mojibian, Mortaz and Shahid Sadooghi, within year 1390, for usual prenatal care and visits during the trimesters of their pregnancy time were included. A random stratified sampling was done and because of not having an exact perception of our study variables, our sample volume was chosen as large as possible. (384 pregnant women) Our data collecting approach was through a questionnaire with two parts, part one for patient personal information and the other part containing Beck questionnaire. Beck is a standard questionnaire to determine the patient severity of perception, behavior and planning to commit suicide. It contains 19 questions. Each question is scored from 0, 1 and 2 and the total score is 38. The theme of questions is designed to evaluate suicide-related issues like a patient wishes to death, his/her urgent tendency for suicide, severity, frequency and time span of suicidal thoughts, ability of oneself control, suicide-inhibiting factors and a patients readiness and predisposition to commit suicide. The first five questions have a screening approach, and if the patient is diagnosed as high risk for suicide, the next 14 questions are asked. The total time to fill the questionnaire is 10 minutes. Based on patient answers to these questions the suicide risk is determined. If the total score is 0-5 the patient is low risk, if 6-19 high risk and if 20 to 38 the patient is very high risk for suicide committal.

The questionnaire as described was filled by our patients. The interview took place in a private room after consent was taken from participants. Every and each patient personal information is perfectly safe with our researchers. It was also made clear for all participants that their medical care and therapy resumption is not due to their participation. One of the most commonly asked questions is about any history of past or present existence of suicidal thoughts and attempts for suicide committal. All possible ways to do it that the patient has ever thought of is also asked in detail and documented. The history of any chronic disease, past marital issues or divorce and abortion or still-birth is also questioned and considered as exclusion criteria.

Our patients, according to age were divided to groups of less than 24, 24 to 28, 28 to 32 and more than 32. All our data after collecting and coding was analyzed by SPSS 16 and all statistical evaluating tests, both for descriptive and illative data analysis, including chi-square and variance was applied to testify its validity. The standard questionnaire was in advance designed and available in Iran.

3. RESULTS

According to our results from the study on 384 pregnant women, 109 cases (28.4%) were in their first three month of pregnancy, 123 (32%) in their second three month and 152 (39.6%) in their last. Educationally-based categorization, 74 cases (19.3%) were beneath diploma, 111 (28.9%) with diploma, 62 (16.2%) above diploma, 74 (19.3%) with bachelor degree, 37 (9.6%) with MA and 26 (6.7%) with PHD. There was no considerable variance in suicide committal observed between these groups. ($p=0.633$)

Among all research participants, 192 cases (50%) wished a baby boy and 42(11%) a baby girl and 150 (39%) had no sex preference. In low risk group, 8.4% of women had a past history of an unsuccessful suicide committal. The same rate in high risk group was 62.3% which obviously represents a meaningful statistical variance. ($p=0.007$) There was no family history of suicidal thoughts in the group of low risks, while 23.14% of high risk group had a positive family history of the issue. This is also a meaningful variance as well. ($p=0.035$) 34.20% of low risk women had shared their suicidal thoughts with someone else while the rate in the group of high risks was 66.10% which is again a meaningful gap. ($p=0.001$)

The most common chosen way of suicide attempts in both high risk and low risk group was through pill taking, the other common ways include using toxics, blades, burnt, hanging and height jumping.

The history of abortion or still-birth was positive in 51 women (13.3%) but no great variance was observed in the group of high risks and low risks. 13 women (3.3%) had a history of smoking or hookah. 65 women (16.9%) had a history of an unwanted pregnancy and 66 (17.2%) with a history of bleeding during their pregnancy period. 174 (45.3%) had been through a rough situation like losing a beloved one within their pregnancy but considering this variable, no meaningful gap was observed. Self-harming behaviors was seen in 3.9% of low risk women and 69% of high risk women which is again representing a noticeable variance with p-value of 0.004 in low risk group and 0.001 in high risk group.

4. DISCUSSION

In this study we concentrated on determining the prevalence of suicidal thoughts and attempts in pregnant women who were referred to four hospitals of Yazd within year 1390 for their common prenatal care and visits. This prevalence is detected 37.5% in 24 to 28 aged group which is concurrent the ones of Gissler study who has reported this rate to be 15%. (18) The rate of suicidal thoughts in general population is reported 12.7% in Iran[19], 20% in Sweden[20], 13.5% in United states of America[21] and 10.4% in Australia.[22] Our study results, as well, shows a higher prevalence in pregnant women comparing to general population, though in the group of pregnant women less than 24 and more than 32, this prevalence is 15% which is close to the rate of general population. It also showed that the maximum suicide committal take place in age range of 24 to 28 which is again concurrent with the one of Gissler's results who has reported this range as 15 to 44 [18]. It is also observed that suicidal thoughts are more prevalent with both women with self-harming behaviors and unwanted pregnancies. In a study by Benute et al on 268 women, done to determine the influence of other factors like age, educational status, wanted or unwanted pregnancies, marital and occupational status and religion on the issue. There was no essential variance observed with these variables.[23] Though in Alavinia et al study done in different states of Iran, educational status of pregnant women was reported as leading influential factor on suicide prevalence.[24]

In our study 13 women (3.3%) had a past history of smoking or hookah, though no great variance was found, considering this factor. In other study done by Czeizel et al, in toxicology department of Budapest in year 2010, 46% of pregnant women who had committed suicide were smokers and 22.5% alcoholics.[25] It might be possible that low frequency of smoking or hookah usage in our target population is the reason for not detecting a variance.

In other study done by Mittendorfer-rutz et al in year 2004, running a stressful life, multiparty, alcoholism and smoking were reported more relevant with risk of suicide committal within pregnancy period.[26] In one other study also, 174 (45.3%) of our suicide cases had been through rough life situations like experience some one's death within their pregnancy. Other studies also suggest abortion or stillbirth can increase suicide risk for 6 times.[17] Based on our study, there is no relation between experiencing abortion or stillbirth and suicide committal.

From all these, we could conclude that among all controversial factors blamed to have something to do with suicide risk during pregnancy , a great relation is reported between suicide committal and unwanted pregnancies, so some way to prevent this could have a promising influence to decrease suicide risk. Fortunately in our study no suicide attempts was reported in age range of less than 24 and more than 32, one case (0.69%) in range of 24 to 28 and one case (0.8%) in range of 28 to 32.

Of course, for more precise results and better handling the issue, wider studies is highly recommended.

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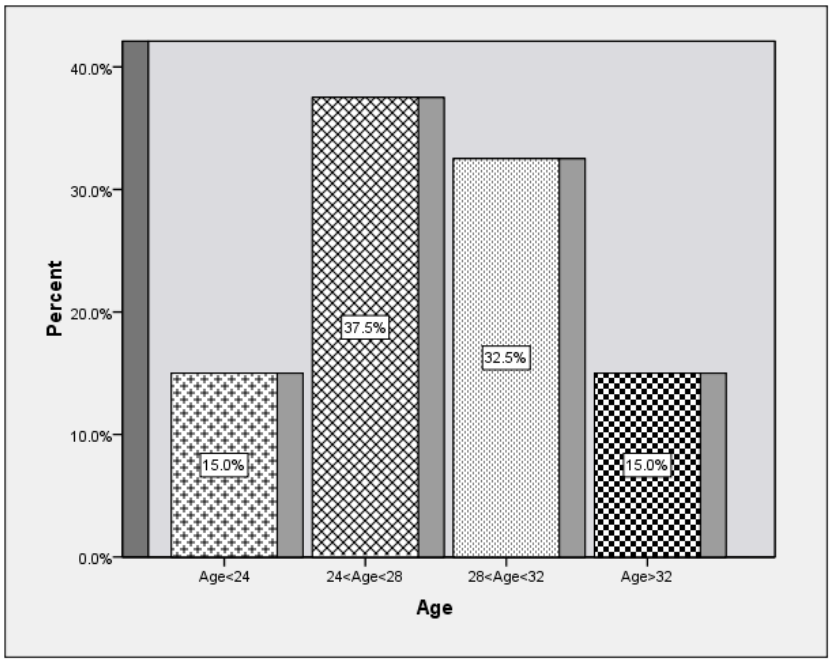

Fig 1: prevalence of referred pregnant women to ShahidBeheshti, Mojibian, Shahidsadooghi and Mortaz hospital according to age categorization

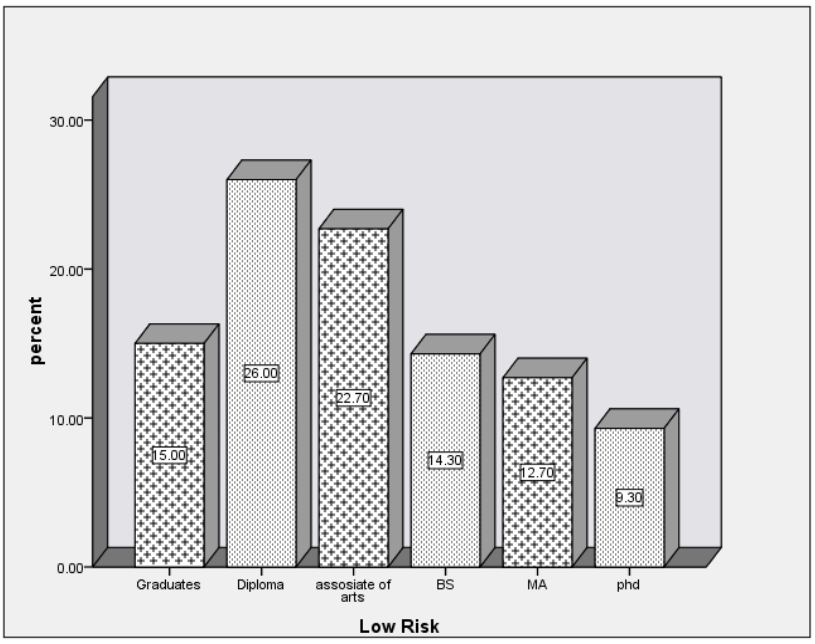

Fig 2: Prevalence of low risk pregnant women referred the four hospital of Yazd, categorized according to educational status

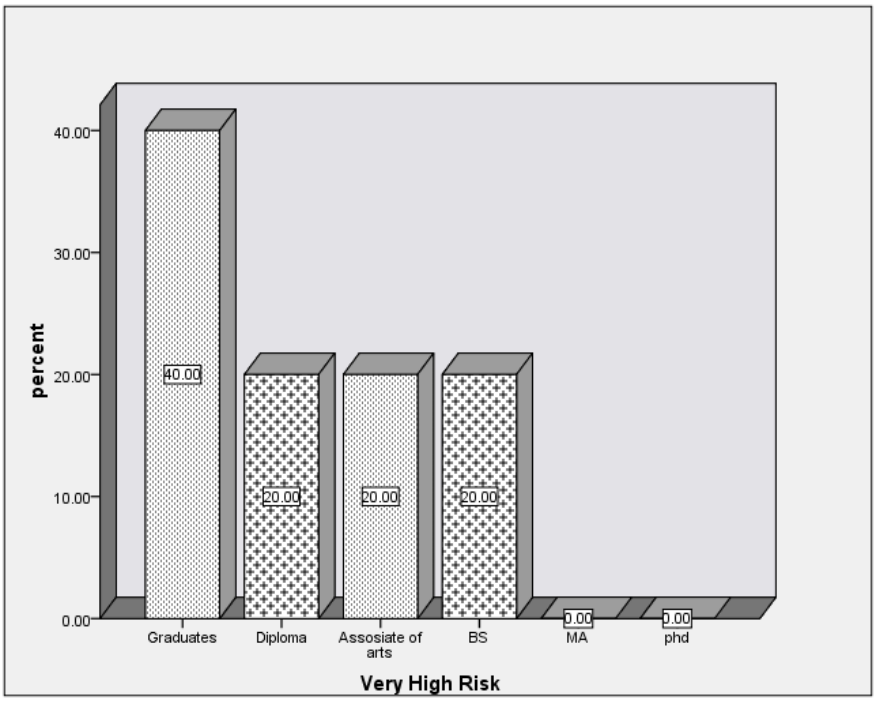

Fig 3: prevalence of high risk pregnant women referred the four hospital of Yazd, categorized according to educational status

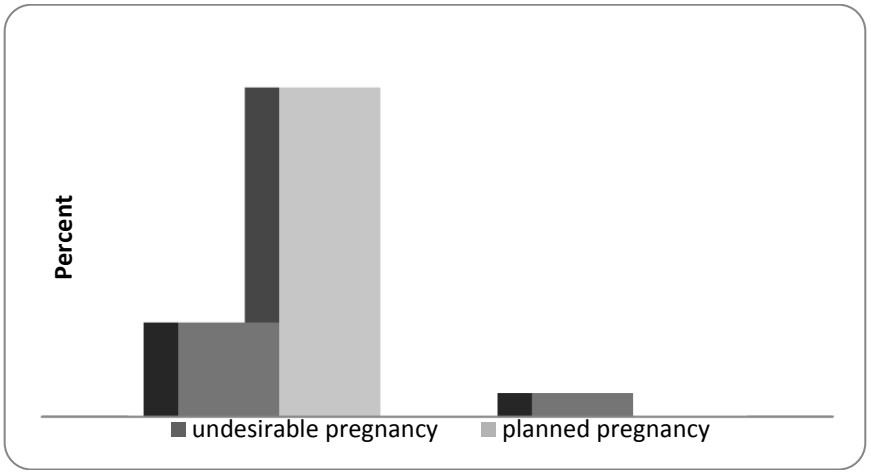

Fig 4: prevalence of suicidal thoughts in pregnant women referred the four hospital of Yazd, categorized according to wanted or unwanted pregnancy

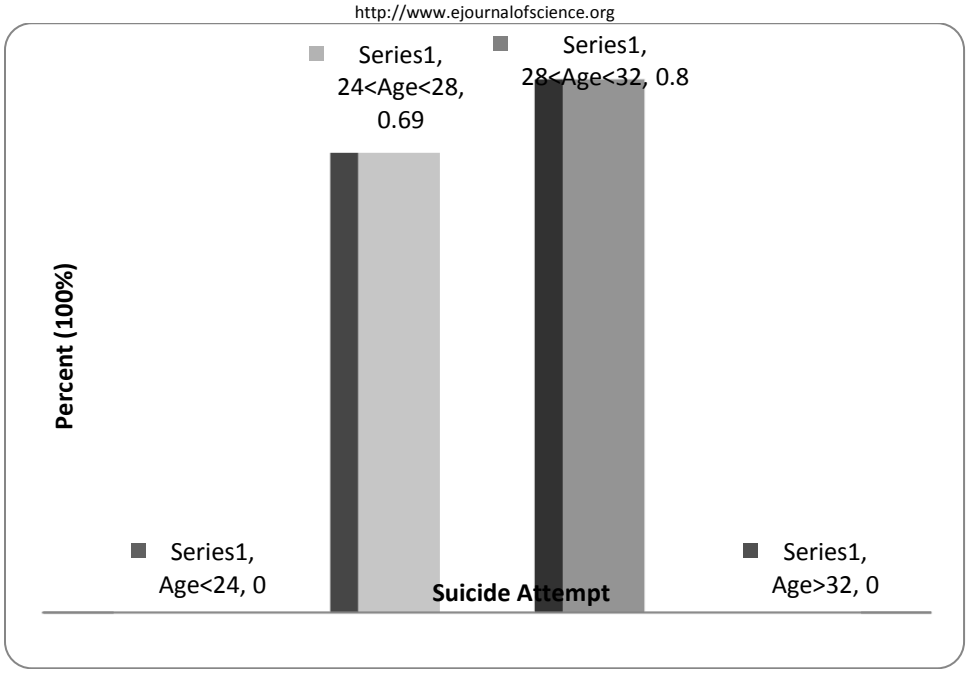

Fig 5: Prevalence of suicide attempts in pregnant women referred the four hospital of Yazd, categorized according to age

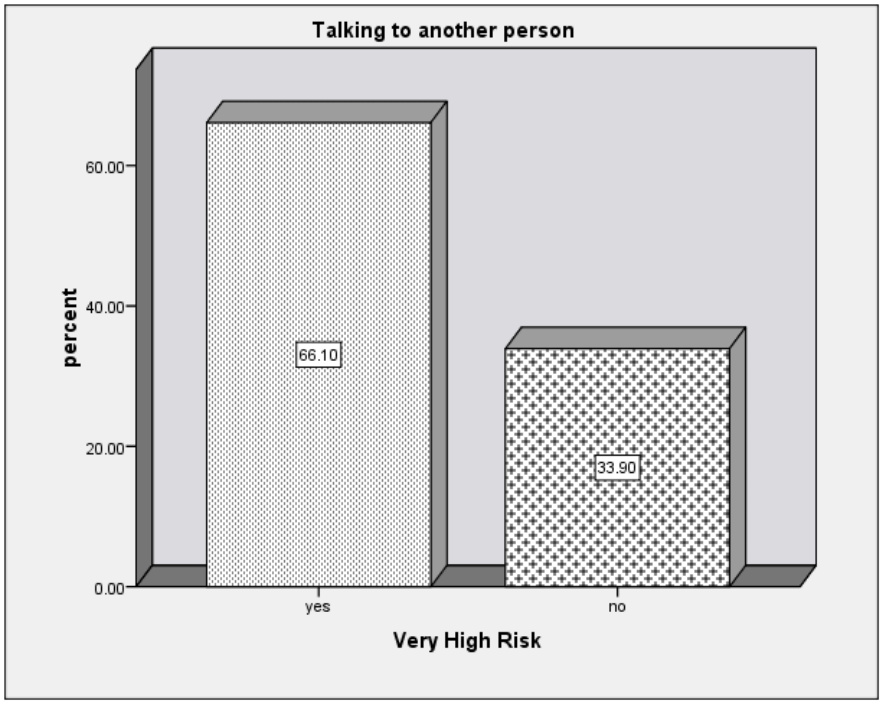

Fig 6: Prevalence of suicidal thoughts in pregnant women referred the four hospital of Yazd, categorized according to if shared with someone else

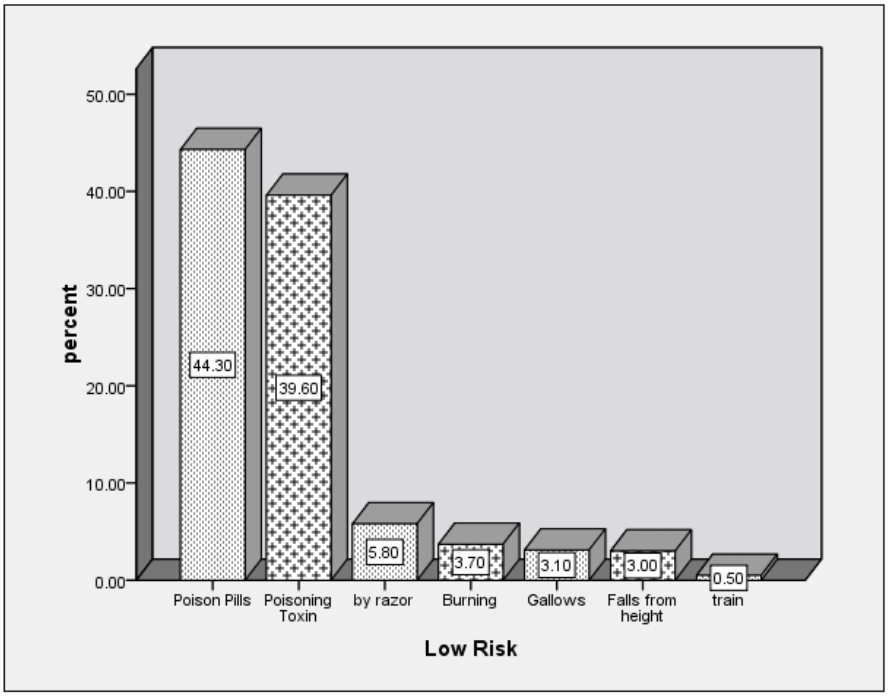

Fig 7: Prevalence of suicidal thoughts in pregnant women referred the four hospital of Yazd, categorized according to manner of doing

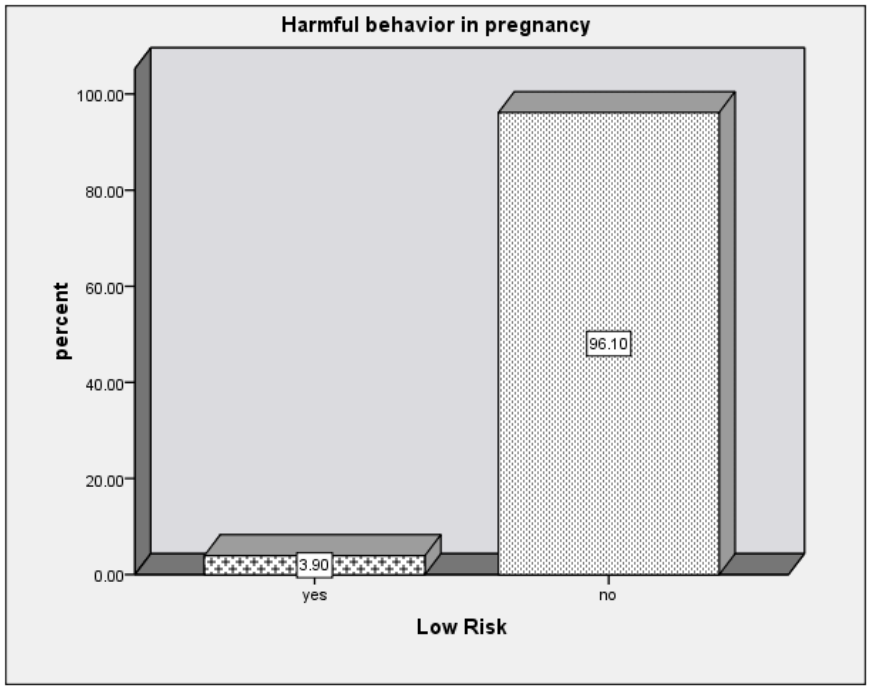

Fig 8: Prevalence of suicidal thoughts in pregnant women referred the four hospital of Yazd, categorized according existing history of self-harming behaviors