

Knowledge of Health Hazards of Iron Deficiency Anemia Amongst Those Women of Higher Education (above F. Sc) and those Women of Lower Education (below F. Sc) in Hayatabad, Peshawar

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ABSTRACT

Background: Anemia is a big problem in Pakistan. Not just in Pakistan, in fact, according to WHO statistics it's prevalent in 28% of the world's population where it's particularly prominent in South Asia. Iron deficiency anemia (IDA) is an easily preventable condition, but due to its lack of knowledge, lack of resources and poverty it's becoming one of the dominating ailments in our society. A lot of women are prone to developing iron deficiency anemia during pregnancy as it the changes in their physiology demand more iron intake; 52% of pregnant women in the developing countries suffer from IDA therefore, women under this category are more vulnerable to the effects of this insidious yet highly morbid condition.

Methodology: It was a community-based study carried out in schools and colleges of Hayatabad. This study was carried out from March 2016 to June 2016. The sample size is 125. Participants were selected from different schools and colleges. There were two groups of participants; one with education level higher than F. Sc and the other with education level lower than F.Sc. For people with education level higher than F. Sc Khyber Girls Medical College and RMI was selected, and questionnaires were distributed amongst the students of different classes (First year to Final year). And for people with education level lower than F. Sc, Forward girls' college, Hayatabad was selected, and questionnaires were distributed amongst students of 8th, 9th and 10th class students. The results were analyzed by SPSS v.20, and their frequency distributions and percentages were calculated.

Results: Out of 150 there were 125 subjects with full questionnaire information, giving a valid response rate i.e., 80%. Out of this 80%, 55.2% were females with education above F. Sc and 44.8% were the females with education below F.Sc. Among those females with education level above F. Sc, 52% of the females were having a lot of knowledge regarding IDA whereas, females who were having education level below f.sc, only 5.36% of them had a lot of knowledge and 66% of them were having only some knowledge regarding IDA. Regarding knowledge, 68% of females with above f.sc level education knew about IDA through their own education while females below f.sc level it was 51%. Regarding hazardous to health 46% females with education level above f.sc consider it hazardous while among other group of females with education level below F. Sc its 19%. Regarding Impact of education relating to awareness of IDA 55.07% females above f.sc level while 35.71% in group having education below F. Sc think that their education has very much helped them become aware of IDA and its hazards and 1.45% in group with education above F. Sc believes that their education hasn't helped them much.

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Conclusion: This study on Iron deficiency anemia concludes that there is lack of awareness regarding IDA among females having less education. Education is an important factor in awareness of Iron deficiency anemia. Among our two groups, group with higher education knew more about IDA's symptoms, Hazards, and treatment option. The more they had knowledge regarding IDA the more they were able to cope with this problem. Thus, to exclude IDA from the community we have to educate our young generations.

KEYWORDS: Iron deficiency anemia; IDA; Education; Hayatabade

INTRODUCTION

Anemia is a big problem in Pakistan. Not just in Pakistan, in fact, according to WHO statistics it's prevalent in 28% of the world's population where it's particularly prominent in South Asia [1]. Iron deficiency anaemia (IDA) is an easily preventable condition, but due to its lack of knowledge, lack of resources and poverty it's become one of the dominating ailments in our society. In Pakistan, 69% children <2 years of age, 47% children, 39% adolescents, 30% adult females and 12.7% adult males suffer from iron deficiency anemia [2]. Evidently, this condition is prevalent in children and women and this evidence can aid us in targeting the correct group to educate in order to decrease the prevalence of anemia i.e., females. The signs and symptoms of iron deficiency anemia vary according to its severity, but generally in women they include weakness, easy fatigability, dizziness, fainting, lack of concentration, tachycardia, maternal hemorrhage, premature delivery, low birth weight and increased risk of maternal mortality. A lot of women are prone to developing iron deficiency anemia during pregnancy as the changes in their physiology demand more iron intake; 52% of pregnant women in the developing countries suffer from IDA [1] therefore, women under this category are more vulnerable to the effects of this insidious yet highly morbid condition.

One of the keys to improvement of health is education. There are many levels of education and incorporating knowledge on easily preventable conditions like IDA in programmed up to secondary education level is essential in reducing morbidity and mortality levels in developing countries. The USAID conducted research in 8 developing countries to find out women's perception on IDA prevention and control, and they discovered that the people recognized anemia rather by its symptoms than a specific disease and approx. half the female participants were aware of the possible effects of IDA yet didn't consider it a primary health concern [3]. One study in Ecuador on maternal awareness of anemia concluded that university attending women had vaster knowledge on IDA than those women who didn't get university level education [4]. Another study undertaken in Hubei province, China on awareness of IDA among women of childbearing age, found that awareness regarding IDA is directly linked with the educational and social status of a community [5].

OBJECTIVES

Our main objectives are to highlight the knowledge regarding anemia hazards amongst highly and lowly educated women and to assess if there's a difference in awareness of anemia hazards between the two groups.

Rationale

We would like to find out the extent of awareness of iron deficiency anemia amongst women of higher education and of lower education in Hayatabad, Peshawar. This study has been conducted elsewhere but not in Hayatabad. Education in schools, colleges etc. is an important component in increasing awareness,

however, there are many other methods in which awareness is augmented like through the media and social groups. By being able to compare the extent of awareness of hazards of anemia of the women of two educational backgrounds, we may be able to deduce which elements contribute more to awareness of IDA, hence, certain measures can be exercised in order to boost the awareness of IDA.

Methodology

It was a community-based study carried out in schools and colleges of Hayatabad. This study was carried out from March 2016 to June 2016. The sample size was 150. Participants were selected from different schools and colleges. There were two groups of participants: one with education level higher than F. Sc and the other with education level lower than F. Sc. For people with education level higher than F. Sc Khyber Girls Medical College and RMI was selected, and questionnaires were distributed amongst the students of different classes (First year to Final year). And for people with education level lower than F. Sc, Forward girls' college, Hayatabad was selected, and questionnaires were distributed amongst students of 8th, 9th and 10th class students. Both the groups were assessed about their knowledge of Iron deficiency anemia and its hazards. There is some bias present, as the questionnaires distributed to those of higher education level were to medical colleges rather than any other colleges of different degrees, and this bias can have effects on the results. The results were analyzed by SPSS v.20, and their frequency distributions and percentages were calculated. There was no missing data.

DISCUSSION

Nowadays, iron deficiency anemia has become a common public health problem in countries all around the globe. It has affected 24.8% of the population globally where the highest prevalence is in preschool-aged children and the greatest number of individuals having IDA are non-pregnant women [6]. Since it's a common health issue, educating people about anemia and its health hazards is vital. Without education, prevention of anemia is not looked upon, leading to adverse health impacts especially on women and children, further causing social and economic damage [7]. This study was designed to analyses how much knowledge women of two educational levels have on IDA, its causes and its hazards in a specific area of Peshawar. Knowledge is the first step to behavior change, hence, a healthier lifestyle. Therefore, assessing people's knowledge on a particular issue is important in order to find out what steps need to be taken for further progression.

It was seen that, females of a high educational background possessing knowledge of IDA was 52% whereas the percentage of women having only some knowledge of IDA at the same educational level was 2.9%. In the below f.sc level of education group, the percentage of women having an abundance of knowledge plummeted to 5.36% whereas, those having some knowledge was 66%. A study undertaken in Sierra Leone on a similar topic concluded that knowledge of IDA in women is poor [8]. It seems like

higher education is more informative of IDA than lower education, and so this must be investigated.

More than half of the candidates in each group gained awareness of IDA through their own education however, as mentioned earlier the percentage of the lower education group was lower than that of the higher education level group rounding to 51%, which is 17% less than that of the latter. Similar research conducted in Indonesia showed that anemia was most common in women of lower educational status as opposed to those women of higher educational background [9]. Through this, it can be conceded that higher education teaches women about IDA, which is not enough in order to make a change. Anemia is the major public health problem in adolescent girls due to certain factors like menses, poor eating habits, a growth spurt etc. [10]. Since lower education comprises of adolescents, it is vital that we incorporate IDA as a key subject in their education system and not leave it for higher education as many may not even progress to that stage.

One previous KAP study on knowledge and awareness of anemia in females in Iran showed that 57.3% of secondary educated girls had minimal knowledge of IDA and its hazards [11]. That is surprisingly nearly two thirds of the females participating. Another study carried out in south Ethiopia on awareness of anemia and associated factors among pregnant women attending antenatal care, showed that only 26.5% of the women acknowledged the hazards of anemia during pregnancy. A quarter of the participants received secondary education which comprises a large portion of the individuals [12]. This is in correlation with our results; A large number of participants were in secondary education and only 19% of them believed that IDA is hazardous for the health. On the contrary, 46% of females of university level thought the same, which shows a significant gap between the two groups. This gap can be minimized if awareness of IDA, its causes and hazards are introduced into all secondary education. If IDA can be combatted from a young age, a healthier society can bloom as awareness leads to behavioral changes and most importantly protects against all the complications.

In regard to how hazardous IDA actually is, surprisingly 14% of candidates and 9% of candidates from each educational background considered shortness of breath and arrhythmias as hazardous, respectively. Less than 9% of the females from each group believed that hazards can be due to heart failure, multi organ failure and premature birth. The percentages for both the groups are very close with only a few point differences. This implies that knowledge on health risks from IDA from both educational levels is similar. This also applies to what they think the causes of IDA are; In both the groups most, females think that it is low iron intake as a cause of IDA followed closely by menstrual bleeding and pregnancy. Iron deficiency due to malnutrition is the most common cause of IDA. Therefore, we can deduce that the level of education doesn't have a significant impact on the extent of knowledge; rather it contributes to awareness only. In this case, it's not right to ignore intervention in the tertiary educating system as this also needs tweaking. Both educational levels need intervention in order to deliver all the information possible about IDA.

Our study shows that 55.07% of females from higher educational background and 35.71% from lower educational level believe that their education has helped them become aware of IDA, its causes and hazards. The other females don't think so as much, which seems reasonable as we have discovered that their education

levels have made them merely aware that IDA exists and is common in females rather than convey full knowledge on the subject.

Limitations and Bias of study

- a) Cultural
- b) Economical restraints
- c) Non-cooperation of the subjects
- d) Approach to females

Awareness of hazards of anemia among the females of higher education above F. Sc and lower education below F. Sc, is of much importance and relevance to the society. But taking into account the limitations of the study we have come across a few hurdles in carrying out a proper and well-organized study. Cultural and economic restraints are worth mentioning. However, the present study gives a clear picture that education has a great role in considering our objectives. Other studies also show similar percentages and the importance of education in the awareness and prevention of such conditions. Bias occurred when the participants above F. Sc level were from medical institutes like KGMC and RMI. Other institutes of different professions should have been interviewed as well.

VALIDITY OF RESULTS

According to our knowledge this study will help us a lot in preventing and treating such common diseases. By publishing this study, we may become able to create not only awareness but full knowledge on the subject among the women of both lower and higher education on the hazards and prevention of such easily treatable conditions that are very much common in our society. This study reflects that we should give more attention to less educated people of society, however, the highly educated shouldn't be totally ignored either. Both sects need to be addressed, maybe at different levels. If the right amount of knowledge on this agenda is passed on correctly to both groups, only then can we see a difference.

CONCLUSION

This study on Iron deficiency anemia concludes that there is lack of awareness regarding IDA among females having less education. Education is an important factor in awareness of Iron deficiency anemia. Among our two groups, group with higher education knew more about IDA's symptoms, Hazards and treatment option. The more they had knowledge regarding IDA the more they were able to cope with this problem. Thus, it is clear that to exclude IDA from community we have to educate our young generations. The implementation of plans to educate the younger generation about this condition is necessary. This could be carried out by sending out health professionals to talk about IDA in schools and or theatre groups conducted plays on it as younger people are more receptive to this kind of information. Apart from this mass media can be used for e.g., Facebook and adverts. Leaflets are also good to be distributed amongst females. All the above-mentioned methods can help raise awareness of IDA and its hazards amongst females of education level lower than F. Sc and help improve the health of our society.

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