



RESEARCH ARTICLE

PRE CONCEPTION CARE: ITS RECOGNITION AND ACCEPTANCE IN HAIL, KSA. A CROSS SECTIONAL STUDY

^{1,*}Nuzhat Parveen, ²Yasmeen Muraizeq, ²Monerah Alshammari and ²Asma Almutairi

¹Obstetrics/Gynaecology, College of Medicine/University of Hail, KSA

²College of Medicine/University of Hail, KSA

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ABSTRACT

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Objective: Objective of present study is to explore preconception care prospective in women living in Hail, Saudi Arabia.

Methods and materials: It is a cross sectional study including 415 reproductive aged participants who were planning to conceive or not using any contraception. Women interviewed and responses collected from October 2017 to March 2018.

Results: Women of 30-45 years of age years showed maximum contribution (356). 63% of the responders were well educated from college level onwards. Nulliparous women made 9.9% while rest 90.1% were multiparous women of which 28 % had 2-4 children. Among 415 women 54% (224) had vaginal deliveries before, 17.8 % (74) delivered by cesarean section. the women who had experience of both modes of delivery (vaginal and cesarean) made 18.8 % (78) and 9.4 % (39) didn't had any delivery before. A good percentage 59.35% was familiar about this care while 39.8% had received it ever during their life. Majority of women 80% thinks it is beneficial and can affect future pregnancies positively, 79.8% expressed their wishes of getting it while planning their upcoming pregnancy. A large proportion 93% were convinced of its pay off and desired to recommend it to their family and friends and to help achieving healthier generations.

Conclusion: We conclude that the awareness in regard to pre conception care, education is the main factor which is directly related to knowledge and understanding. Focus on the education of females can increases awareness as well as acceptability.

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INTRODUCTION

The concept of preconception care is to improve the health of the woman during future pregnancy to gain grounds for upcoming child through primary prevention. From the earliest recorded times women are found to be cautious to avoid hazardous substances while pregnant or awaiting to become pregnant. It is recorded in old the Old Testament how women were advised not to take harmful things like wine while they were given a sacred writ that they are going to have a son (Margaret Comer ford Freda *et al.*, 2006). Maternity care starts at the end of first trimester or little earlier and at mid pregnancy in some low income countries. This is the time when embryonic growth period (which is crucial in organ development) has already been completed. By this time, it is too late for any intervention to benefit in those women who suffer from an active or advanced pre existing medical

problem, the damage had already been occurred. Preconception care is an ideal way to avoid untoward pregnancy outcomes. The mean age of the women at first child has been rising through the previous decade. The trends of getting pregnancies in late reproductive age (30s and more) is increasing so is the risk of certain disease which start after this age (Martin *et al.*, 2015). Additionally now the trend of getting these problems (Diabetes (Irma Yehuda, 2016), HTN) has shifted towards earlier age and women of reproductive age are at greater risk, so these women are the target population for pre conception health advice (<http://www.cdc.gov/diabetes/statistics/incidence/fig5.htm>). Pre conception care is provided after assessing maternal health status. Detailed inquiry into personnel or family life style, medical and genetic disorders (Guido *et al.*, 2012), social and mental problems is done for risk assessment, in order to plan individual care and counseling. Future risk factors are determined after initial evaluation and obligatory screening investigations. Particular consultation /professional advice are then provided including necessary medical interventions, behavioral interventions and life style modifications. Inquiry about domestic physical,

***Corresponding author: Nuzhat Parveen,**
Obstetrics/Gynaecology, College of Medicine/University of Hail,
KSA.

mental and social abuse/ violence is now considered crucial to get optimum health benefits in future mothers and children (Anna Berglund and Gunilla Lindmark, 2016). The debate about PCC has been started extensively in past few decades throughout the world. Most women understand the importance and express positive attitudes toward pre conception care but many don't think it deem necessary to get full evaluation and advice, hence they ignore this important period when primary interventions can improve their pregnancy outcomes (van der Zee *et al.*, 2013). With increasing awareness there is a lot of stress on preventive health so is on pre conception health (Robin Harwood *et al.*). Although in most of the western countries PCH services are well recognized to improve pregnancy outcomes but practically it is limited to a single visit, intervention and counseling or selecting only women with medical diseases. Coonrod et al conducted a study in which all participants acknowledge the importance of preconception care but 60 % never got any consultation or advice (Coonrod *et al.*, 2009). Majority considers it important but when asked whether they would seek preconception advice in their future pregnancy, attitudes were negative. It figures out that we are just one step behind in convincing them to get proper advice before the start of pregnancy. Second group to target is of multiparous women who think they have enough experience and don't necessarily need professional help. Along with them, many people consider it is just meant for infertile couples or couples with genetic diseases in siblings. There is a great need to create awareness among susceptible population (reproductive age women), in order to achieve the desired outcomes. Pre conception health and care is a very wide spectral project. Getting an advice just before a pregnancy is only tip of an ice berg. Improving the education of adolescent girls, nutritional optimization, family planning, infectious disease prevention and screening and management of chronic health illnesses are the root targets (Zohra *et al.*, 2014).

In wider aspects, as preconception health and care targets all reproductive aged women and men, it can improve community health and thus future generations.

MATERIALS AND METHODS

A community based cross sectional study was performed in Hail, Saudi Arabia. It included 415 reproductive aged women who were either planning for their pregnancy or were not using any contraception. Study started from October 2017 and took 6 months to collect data. Respondents were explained in detail about the study details and its purpose before interviewing, and all willing to participate were included. Structured Performa questionnaire used to get uniform information. Data was entered in SPSS version 22. We used descriptive statistics for analysis.

RESULTS

Based on inclusion criteria, 415 women of Hail willingly participated in the study. Their response rate was 100%. Women of 30-45 years of age years showed maximum contribution (63 %). 63% of the responders were well educated from college level onwards. nulliparous women made 9.9% while rest 90.1% were multiparous women of which 28 % had 2-4 children. Among 415 women 54% (224) had vaginal deliveries before, 17.8 %(74) delivered by cesarean section. the women who had experience of both modes of delivery (vaginal and cesarean) made 18.8 %(78) and 9.4 %(39) didn't had any delivery before. Results summary is shown in the table1.

DISCUSSION

Our study reported that 59.3% from 415 reproductive aged women of Hail were familiar with preconception care.

Table 1. Association between pre conception care prospective and participants demographics

Sub groups	Did you ever receive PCC?		Are you Aware of PCC?		Does PCC positively affect pregnancy outcome?		Will receive PCC before next pregnancy?		Do you Recommend it to F/F?		
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
Age	16-20 year	10	3	7	6	9	4	9	4	12	1
	21-25 year	36	10	28	18	38	8	40	6	44	2
	26-30 year	52	40	54	38	71	21	77	15	86	6
	31-35 year	47	33	45	35	68	12	64	16	75	5
	35-40 year	46	42	54	34	70	18	72	16	83	5
	41-45 year	59	37	58	38	76	20	69	27	86	10
		P value 0.057		P value 0.981		P value 0.715		P value 0.207		P value 0.766	
Education	No formal education	17	3	5	15	8	12	6	14	13	7
	Primary	9	6	8	7	9	6	12	3	11	4
	Secondary	13	9	13	9	14	8	16	6	22	0
	High school	49	27	48	28	63	13	60	16	73	3
	University	147	113	158	102	218	42	218	42	246	14
	Master	15	7	14	8	20	2	19	3	21	1
		P value 0.170		P value 0.055		P value 0.000		P value 0.000		P value 0.000	
Parity	Nulliparous	38	3	24	17	32	9	31	10	37	4
	1-2 children	60	45	34	71	85	20	89	16	99	6
	3-4 children	67	49	53	63	98	18	96	20	109	7
	4-5 children	48	42	34	56	68	22	73	17	87	3
	6 or more	37	26	24	39	49	14	42	21	54	9
		P value 0.00		P value 0.039		P value 0.571		P value 0.050		P value 0.095	
Previous deliveries	Nulliparous	36	3	22	17	30	9	30	9	35	4
	Vaginal Deliveries	142	82	87	137	176	48	177	47	204	20
	Cesarean section	33	41	28	46	59	15	60	14	72	2
	Both	39	39	32	46	67	11	64	14	75	3
		P value 0.00		P value 0.207		P value 0.529		P value 0.895		P value 0.157	

This familiarity was calculated based on the fact that they had ever heard about it. Those women who had no concept of it were (169) 40.7%. These findings coincide with the studies (Anna Berglund and Gunilla Lindmark, 2016). However studies from other countries (Ethiopia (Ayalew *et al.*, 2017) 27.5%, Nepal 15.6% (Gautan and Dhakal, 2016), Netherland (Poels *et al.*, 2017)) had much lower level of acquaintance. This familiarity has no association with age. Women of all reproductive ages showed similar presumptions towards PCC. Converse is true about the women who were not aware of this care. Women of 41-45 years of age were the group who was most unaware PCC. Similarly awareness has no correlation with education. Respondents with 2-4 children were more aware. It reflects the fact that the women with experiences of pregnancy and childbirth understand its importance and know the facilities providing this care. Where awareness of pre conception care is not a problem in our community, the actual reception of thorough care is much less. Present study revealed 39.8 % (165) respondents ever received PCC before their pregnancy. It included those women who had single visit to get advice without any evaluation and follow up. From the percentage of women who got this care before 35 to 45 years had maximum contribution. University graduates, multiparous women (3-4 children) and those delivered by cesarean section were in greater number in positive responses. Of respondents in our study 80 % (331) consider that PCC has beneficial effects on pregnancy and its outcome. At the same time 20 % (84 responses) declines for the worth of Pre conception care. These findings escalate the results of other studies (van der Zee *et al.*, 2013) where the couples recognize the importance and beneficial effects of PCC during future pregnancies (Al-Akour *et al.*, 2015). Most supportive Group included 31-35 years women, university level educated, with 3-4 children and those delivered by cesarean or had experience of both vaginal and operative births.

When we asked the women whether they will gain the opportunity of PCC before their next conception, majority (79.8%) exhibited positive attitude. Association with demographics is same as with other information. Clues are same as in other studies with different backgrounds. This is only the attitude but when the time of actual following, many of them comes will never go for it (van der Zee *et al.*, 2013). Regarding the recommendation of PCC to family and friends, and helping in creating awareness about its assistance in future pregnancies to get optimal outcome, 93% expressed their intentions that they will pass on this information to their friend and family relatives and will contribute positively in campaign for better reproductive health of the women in this community of Hail. Pre conception care and preconception health in broader aspects is designed to promote the health of women and even adolescent girls before they start their pregnancies. These projects will not only improve reproductive outcomes in women but men should also be involved in order to get desired pregnancy results. Primary preventive health is the root element in achieving better reproductive health and avoiding untoward pregnancy sequel (Kevan Coffey, 2014). Current study had many limitations. Selection of participants was random, age of participants, education status, parity were not uniform. It presents only women of hail region which make a share of only 2.17% of total population of Saudi Arabia. Additionally there are a lot of factors which affect perceptions about PCC in women. There is need to perform more uniform studies at higher levels.

Conclusion

We conclude that the awareness in regard to pre conception care, education is the main factor which is directly related to knowledge and understanding. Focus on the education of females can increase awareness as well as acceptability.

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