

RESULTS

The main findings of the study are presented in the following parts.

- Part I. Socio-demographic characteristics and obstetric history:
tables 1-2
 - Part II. Self-care concepts related to various aspects of
reproductive health: tables 3-9, figure 1
 - Part III. Attitudes towards various aspects of reproductive health:
tables 12-13, figure 2
 - Part IV. Frequency of reproductive problems reported by pregnant
women: table 14.
 - Part V. Relations between women' self-care concepts, attitudes,
and personal characteristics: tables 15-17
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Part(I): Socio-demographic characteristics and obstetric history.**Table (1):** Socio-demographic characteristics of women in the study sample (n=300)

	Frequency	Percent
Age (years):		
<20	33	11.0
20-	66	22.0
25-30	201	67.0
Range	16-30	
Mean±SD	25.5±3.6	
Education:		
Illiterate	122	40.7
Read/write	13	4.3
Basic	30	10.0
Secondary	106	35.3
University	29	9.7
Job status:		
Working	23	7.7
Housewife	277	92.3
Duration of marriage (years):		
<5	142	47.3
5-	81	27.0
10+	77	25.7
Range	2.0-15.0	
Mean±SD	6.6±3.7	
Husband education:		
Illiterate	127	42.3
Basic/secondary	146	48.7
University	27	9.0

Table 1 shows that women's age ranged between 16 and 30 years, with a mean±SD 25.5±3.6 years. The highest percentage (67.0%) were in the age group 25 to 30 years. As regards education, the table shows that more than two-fifth (40.7%) were illiterate, and only about one-tenth (9.7%) had a university degree. Husbands' education had closely similar percentages, with 42.3% illiterate, and 9.0% with a university degree (42.3%). The majority of the women (92.3%) were housewives. The duration of marriage was mostly less than five years (47.3%), and ranged between 2 and 15 years.

Table (2): Obstetric history of women in the study sample (n=300).

	Frequency	Percent
Gravidity:		
2-4	268	89.3
5+	32	10.7
Range	2-8	
Mean±SD	2.9±1.1	
Parity:		
1	149	49.7
2	93	31.0
3+	58	19.3
Range	1-6	
Mean±SD	1.8±0.9	

Table 2 illustrates that none of the women was primigravida, and the majority were gravida 2 to 4 (89.3%). Meanwhile, slightly less than half of them (49.7%) were primipara, and parity ranged between 1 and 6.

Part(II): Self-care concepts related to various aspects of reproductive health

Table(3): Self-care concepts related to personal hygiene during menses among studied women (n=300)

Self-care personal hygiene during menses:	Frequency	Percent
Clean external genitalia with soap and water	289	96.3
Change pads	297	99.0
Frequency (n=297):		
Every 4-6 hours	192	64.6
Every 8-12 hours	105	35.4
Practice of exercise	9	3.0
Take a bath daily	191	63.7
Avoid some food items	35	11.7

According to Table 3, the majority of the women had a correct concept regarding cleaning external genitalia (96.3%) and changing pads (99.0%). The frequency of changing pads was thought to be four to six times per day by about two thirds of the women (64.6%). A similar percentage (63.7%) had the correct concept of taking a daily bath. Conversely, only a small minority agreed about practicing exercise during menses (3.0%), and about avoiding certain food items (11.7%).

Table(4): Self-care concepts related to pregnancy among studied women (n=300)

Correct self-care during pregnancy:	Frequency	Percent
Perineal care:		
Clean perineal area	286	95.3
Clean it (n=286)		
Up-down	163	57.0
Down-up (incorrect)	5	1.7
Any (incorrect)	118	41.3
Breast care:		
Clean breasts	217	72.3
Regular self-exam	31	10.3
Watch for abnormal changes	50	16.7
Use suitable bras	275	91.7
Personal hygiene/rest:		
Avoid high-heel shoes	205	68.3
Avoid tiring travels	230	76.7
Avoid heavy domestic work	227	75.7
Dental hygiene (brush teeth daily)	64	21.3
Wear suitable clothes	278	92.7
Get enough sleep and rest	159	53.0
Health care:		
Had tetanus vaccination	287	95.7
Seek antenatal care immediately after missed first period	171	57.0
Eat balanced diet rich in vitamins, Ca, and Fe	102	34.0
Avoid non-prescribed medications	128	42.7

Table 4 shows that the majority of women had a general correct concept about the importance of keeping perineal area clean (95.3%). However, only slightly more than half (57.0%) had a correct knowledge about the proper up-down direction of cleaning. As regards breast self-care, the majority had a correct concept of wearing proper bras. However, a small minority had the correct concepts of regular breast self examination and watching for abnormal changes, 10.3% and 16.7%, respectively.

The same table indicates that the majority had a correct concept about wearing suitable clothes (92.7%). Conversely, only slightly more than half of the women had correct concepts about rest and sleep during pregnancy (53.%). The least correct concept was about dental hygiene, where only about one-fifth (21.3%) of women had the correct concept of importance of daily brushing of teeth.

The table also illustrates that the majority of women had correct concepts about tetanus vaccination (95.7%). Conversely, only slightly more than half of them (57.%) had a correct concept about the importance of immediate seeking of antenatal care after first missed period. The correct concepts of women regarding diet and avoiding non-prescribed medications during pregnancy were low, 34.0% and 42.7%, respectively.

Table (5): Self-care concepts related to puerperium among studied women
(n=300)

Postpartum self-care practices:	Frequency	Percent
Perineal hygiene	300	100.0
Method of cleaning:		
Running water with soap	6	2.0
Sitting in lukewarm water and soap solution	294	98.0
Change pad	294	98.0
Frequency (n=294):		
Regularly	89	30.3
As needed	205	69.7
Perform domestic work during puerperium	268	89.3
Type of work (n=268):		
Heavy	91	34.0
Light	177	66.0
Prepare balanced diet rich in vitamins, Ca, Fe	172	57.3
Get enough sleep hours	149	49.7
To regain abdominal muscles power:		
Lie down on back	1	0.3
Use abdominal belt	220	73.3
Practice exercise	70	23.3
Use contraceptive method	245	81.7

Table 5 shows that all women (100.0%) had correct concepts regarding keeping perineal area clean. However, the majority had the incorrect concept of sitting in luke warm water (98.0%). Also, the majority had a correct concept about the importance of changing pads (98.0%), although only about one-third would change pads regularly (30.3%).

The table also illustrates that the majority of women had a correct concept of performing domestic work during puerperium (89.3%), mostly in the form of light work (66.0%). Meanwhile, the concepts about proper diet and getting enough sleep during puerperium were low, 57.3% and 49.7%, respectively. The incorrect concept about using an abdominal belt was high (73.3%), whereas the correct concept of practicing exercise to regain abdominal muscles power was low (23.3%). The correct concept of use of a contraceptive method was expressed by the majority of women (81.7%).

Table(6): Self-care concepts related to breastfeeding among studied women
(n=300)

Self-care during breastfeeding (BF):	Frequency	Percent
Start suckling immediately after labor	288	96.0
Clean breasts before BF	81	27.0
Eruptate baby after BF	204	68.0
Take a glass of fluid before BF	105	35.0
Take food items that increase milk secretion	77	25.7
Breastfeed from both sides alternatingly	284	94.7

Table 6 indicates that the majority of women had correct concepts about starting suckling immediately after labor (96.%), and breastfeeding from both sides alternatingly (94.7%). Conversely, the correct concepts about cleaning breasts before breastfeeding and taking food items that increase milk secretion were very low, 27.0% and 25.7%, respectively.

Table (7): Self-care concepts related to start of sexual relation after puerperium among studied women (n=300)

Self-care related to sexual relation:	Frequency	Percent
Clean genitalia before intercourse	198	66.0
Preparation for intercourse:		
Empty bladder	126	42.0
Hot bath	103	34.3
Removal of body hair	2	0.7
Use of lotions	2	0.7

As table 8 shows, about two thirds of women had a correct concept about cleaning genitalia before intercourse (66.0%). However, only about two-fifth (42.0%) had a correct concept regarding emptying urinary bladder. Removal of body hair and use of lotions were each mentioned by only 0.7% of women.

Table(8): Self-care practices related to baby care among studied women (n=300)

Baby care:	Frequency	Percent
Give baby complete bath after birth	300	100.0
Time:		
After one week	59	19.7
Immediately	241	80.3
Care for umbilical stump with alcohol:	285	95.0
Frequency (n=285):		
Regularly	182	63.9
Irregularly	103	36.1
Apply eye drops for baby:	159	53.0
Frequency (n=159):		
Regularly	80	50.3
Irregularly	79	49.7
Oral hygiene	83	27.7
Recognize first year vaccination schedule	275	91.7
Provide full vaccination	300	100.0

Table 8 shows that all women (100.0%) had the correct concept of the importance of giving baby a complete bath after birth. However, about one-fifth had the incorrect concept of delaying bath for one week (19.7%). The majority (95.0%) had a correct concept about the importance of cleaning umbilical stump with alcohol, and about two-thirds did it regularly (63.9%). Also, about half of the women perceived the importance of applying eye drops to baby (53.0%). The concept about full vaccination was very high (100.0%), whereas the concept about oral hygiene was very low (27.7%).

Table(9): Total women's self-care practices related to reproductive health in the study sample (n=300).

Total adequate self-care concepts (60%+) related to:	Frequency	Percent
Personal hygiene during menstruation	89	29.7
Pregnancy:		
Perineal care	163	54.3
Breast care	79	26.3
Rest and sleep	148	49.3
Healthcare and follow-up	155	51.7
Labor	103	34.3
Puerperium	171	57.0
Breastfeeding	95	31.7
Sexual intercourse after puerperium	131	43.7
FGM	39	13.0
Baby care	239	79.7

Table 9 summarizes women's concepts of self-care related to reproductive health. It indicates that the highest levels of adequate concepts were related to baby care (79.7%), followed by puerperium (57.0%). Conversely, the percentages of adequate concepts were very low regarding FGM (13.0%), breast care during pregnancy, and personal hygiene during menstruation (29.7%).

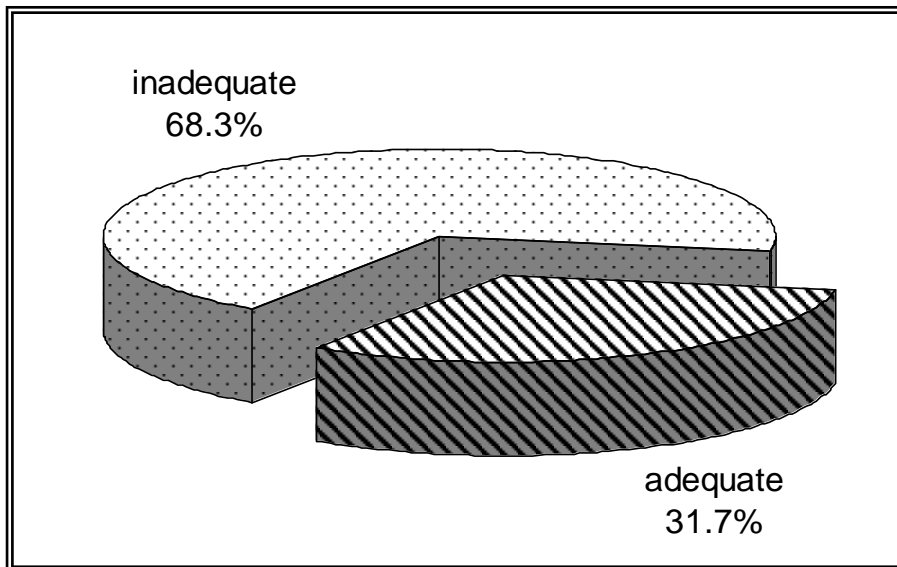


Figure (1): Total women's concepts regarding self-care related to reproductive health (n=300)

Figure (1): indicates that only slightly less than one third of the women (31.7%) had adequate total concepts.

Part (III) : Attitudes towards various aspects of reproductive health**Table (10):** Attitudes towards self-care related to menstruation and general reproductive health among studied women (n=300)

	Disagree		Uncertain		Agree	
	No.	%	No.	%	No.	%
Menstruation:						
• Bathing during menses is important and useful	114	38.0	0	0.0	186	62.0
• Exercising during menses increases pain	70	23.3	4	1.3	226	75.3
• Food has no relation to menstrual disorders	62	20.7	11	3.7	227	75.7
• Perineal hygiene is not important during menses because the area is contaminated	179	59.7	1	0.3	120	40.0
General reproductive health issues:						
• I avoid breast self-exam for fear of tumors	175	58.3	0	0.0	125	41.7
• I maintain brushing my teeth daily	104	34.7	106	35.3	90	30.0
• Female circumcision protects the girl	12	4.0	5	1.7	283	94.3

Table 10 illustrates that, as regards menstruation, about three-fourth of the women have agreed upon the negative attitude statement that exercising during menses increases pain (75.3%). Also, about two-fifth of the women have agreed that perineal hygiene during pregnancy is not important (40.0%), and have disagreed that bathing is important and useful during menses (38.0%). Concerning the general reproductive health issues, the majority of women had the negative attitude that female circumcision protects the girl (94.3%). Also, only about one-third (30.0%) had a positive attitude towards dental hygiene, and about two-fifth had a negative attitude towards breast self-examination (41.7%).

Table (11): Attitudes towards self-care related to pregnancy, among studied women (n=300)

	Disagree		Uncertain		Agree	
	No.	%	No.	%	No.	%
Pregnancy:						
• Family planning programs aim at preventing pregnancy	20	6.7	1	0.3	279	93.0
• Avoiding high heel shoes during pregnancy prevents back pain	5	1.7	2	0.7	293	97.7
• Antenatal care is important for safe pregnancy	60	20.0	99	33.0	141	47.0
• I avoid non-prescribed medications during pregnancy	34	11.3	138	46.0	128	42.7
• Long travels during pregnancy leads to problems	22	7.3	1	0.3	277	92.3
• The use of analgesics like aspirin during pregnancy has no harm	158	52.7	61	20.3	81	27.0

As Table 11 shows, the majority of women had a negative attitude towards family planning programs, where 93.0% of them have expressed their agreement upon the negative statement that the aim of these programs is to prevent pregnancy. Conversely, the majority have agreed with the positive statements regarding avoidance of high heels and long travels during pregnancy, 97.7% and 92.3%, respectively. Only less than half of the women have agreed upon the importance of antenatal care (47.0%), and about the importance of avoiding non-prescribed medication during pregnancy (42.7%).

Table(12): Attitudes towards self-care related to labor and baby care among studied women (n=300)

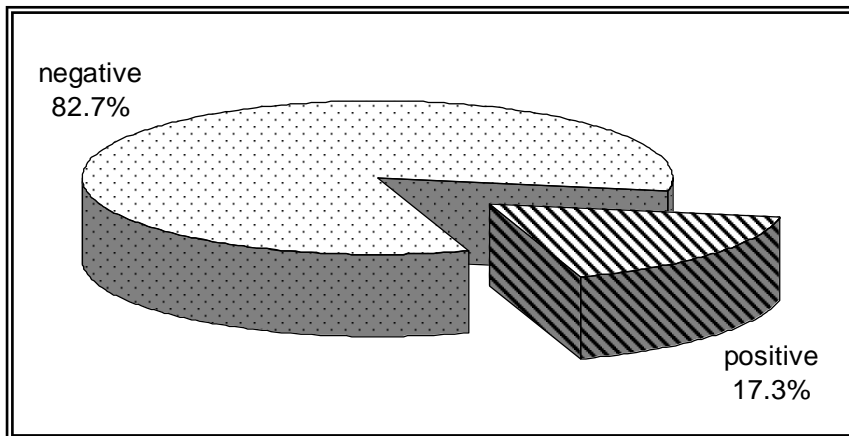
Labor and puerperium:						
• Tetanus vaccination is not important if labor is at hospital	189	63.0	14	4.7	97	32.3
• Labor at hospital is better than home	27	9.0	84	28.0	189	63.0
• I prefer to sit in warm water during puerperium	12	4.0	6	2.0	282	94.0
• Rapid postpartum mobility decreases puerperal problems	10	3.3	2	0.7	288	96.0
• The use of abdomen belt after labor prevents laxity	44	14.7	16	5.3	240	80.0
Baby care:						
• I thoroughly clean breasts before breastfeeding	89	29.7	100	33.3	111	37.0
• Bathing baby immediately after birth may be harmful	178	59.3	15	5.0	107	35.7

As table 12 shows, the concerning labor and puerperium, the table points to two negative attitudes among the majority of women, namely sitting in warm water (94.0%), and use of abdomen belt to prevent laxity (80.0%). Conversely, the majority had a positive attitude towards rapid mobility (96.0%). Meanwhile, about one-third of the women had a negative attitude towards tetanus vaccination, where 32.3% of them have agreed that this vaccine is not important if labor is at hospital. The table also indicates that more than one-third of the women had a negative attitude towards the importance of cleaning breasts before breastfeeding. A similar percentage had a negative attitude towards bathing newborn, where 35.7% have agreed upon the negative statement that this may be harmful.

Table(13): Total attitudes towards self-care related to reproductive health among studied women (n=300)

Positive attitudes (60%+) related to:	Frequency	Percent
Menstruation	230	76.7
General reproductive health issues	8	2.7
Pregnancy	225	75.0
Labor and puerperium	11	3.7
Baby care	133	44.3

Table 13 points to high percentages of positive attitude towards personal hygiene during menstruation (76.7%), and pregnancy (75.0%). Conversely, positive attitudes towards self-care during labor and puerperium and towards general reproductive health issues, 3.7% and 2.7%, respectively.



Figure(2): Total women’s attitudes towards self-care related to reproductive health (n=300).

Figure (2): Shows that only less than one fifth of women (17.3%) had positive total attitudes.

Part(IV):Frequency of reproductive problems reported by pregnant women

Table (14): Reproductive health problems among women in the study sample (n=300)

	Frequency	Percent
Had nipple cracks	135	45.0
Management of nipple cracks (n=135):		
Medical prescriptions	34	25.2
Traditional heals	101	74.8
Had nipple problems retraction	228	76.0
Management of nipple retraction (n=228):		
Medical prescriptions	71	31.1
Traditional heals	157	68.9
Have problem taking bath during pregnancy	126	42.0
Had sexual problems during pregnancy:	167	55.7
Types of problems (n=167)		
Frigidity	7	4.2
Difficulty	42	25.1
Dyspareunia	118	70.7

Table 14 demonstrates that nipple problems were the most common, in the form of retraction (76.0%) and cracks (45.0%). The highest percentages of women have reported having treated these problems using traditional heals, 74.8% and 68.9%, respectively. The table also shows that about two-fifth of the women had problems taking bath during pregnancy (42.0%), and more than half of them had sexual problems during pregnancy (55.7%). The most commonly reported sexual problem was dyspareunia (70.7%).

Part(V):Relations between women' self-careconcepts, attitudes, and personal characteristics

Table (15): Relation between women's self-care concepts of reproductive health and their socio-demographic and obstetric characteristics.

	Total concepts				X ²	p-value
	Adequate (60%+)		Inadequate (<60%)			
	No.	%	No.	%		
Age (years):						
<20	11	33.3	22	66.7		
20-	18	27.3	48	72.7	0.76	0.68
25-30	66	32.8	135	67.2		
Education:						
Illiterate	39	28.9	96	71.1		
Basic/secondary	41	30.1	95	69.9	6.02	0.049*
University	15	51.7	14	48.3		
Job status:						
Working	12	52.2	11	47.8		
Housewife	83	30.0	194	70.0	4.84	0.03*
Duration of marriage (years):						
<5	45	31.7	97	68.3		
5-	20	24.7	61	75.3	3.71	0.16
10+	30	39.0	47	61.0		
Husband education:						
Illiterate	32	25.2	95	74.8		
Basic/secondary	47	32.2	99	67.8	11.98	0.003*
University	16	59.3	11	40.7		
Gravidity:						
2-4	80	29.9	188	70.1		
5+	15	46.9	17	53.1	3.83	0.050
Parity:						
1	42	28.2	107	71.8		
2	28	30.1	65	69.9	4.44	0.11
3+	25	43.1	33	56.9		
History of abortions:						
0	76	29.8	179	70.2		
1+	19	42.2	26	57.8	2.73	0.10
Place of delivery:						
Home	5	25.0	15	75.0		
Hospital	90	32.1	190	67.9	0.44	0.51

(*) Statistically significant at $p < 0.05$

Table 15 points to statistically significant associations between women's concepts towards self-care in reproductive health and their education ($p=0.049$), job status ($p=0.03$), and her husband education

($p=0.003$). It is evident that illiterate women and those with secondary/basic education had higher percentages of inadequate concepts, 71.1% and 69.9%, respectively. Conversely, women with university education had higher percentage of adequate concepts (51.7%). Also, more than half of the working women had adequate concepts (52.2%), compared to only less than one-third of housewives (30.0%). As regards husband education, the table also shows that women whose husbands were illiterate or had secondary/basic education had higher percentages of inadequate concepts, 74.8% and 67.8%, respectively. Conversely, women whose husbands had university education had higher percentage of adequate concepts (59.3%).

Table (16): Relation between women's attitudes towards self-care related to reproductive health and their socio-demographic characteristics

	Attitude				X ²	p-value
	Positive (60%+)		Negative (<60%)			
	No.	%	No.	%		
Age (years):						
<20	7	21.2	26	78.8		
20-	11	16.7	55	83.3	0.39	0.82
25-30	34	16.9	167	83.1		
Education:						
Illiterate	26	19.3	109	80.7		
Basic/secondary	23	16.9	113	83.1	1.35	0.51
University	3	10.3	26	89.7		
Job status:						
Working	4	17.4	19	82.6		
Housewife	48	17.3	229	82.7	Fisher	1.00

Table16:Indicates no statistically significant associations between women's attitudes and any of their characteristics.

Table(17): Relation between women's attitudes towards self-care related to reproductive health and obstetric characteristics

Duration of marriage (years):						
<5	24	16.9	118	83.1		
5-	9	11.1	72	88.9	5.10	0.08
10+	19	24.7	58	75.3		
Husband education:						
Illiterate	26	20.5	101	79.5		
Basic/secondary	24	16.4	122	83.6	2.81	0.25
University	2	7.4	25	92.6		
Gravidity:						
2-4	45	16.8	223	83.2		
5+	7	21.9	25	78.1	0.52	0.47
Parity:						
1	22	14.8	127	85.2		
2	15	16.1	78	83.9	3.72	0.16
3+	15	25.9	43	74.1		
History of abortions:						
0	44	17.3	211	82.7		
1+	8	17.8	37	82.2	0.01	0.93
Place of delivery:						
Home	6	30.0	14	70.0		
Hospital	46	16.4	234	83.6	Fisher	0.13

Table17 Indicates no statistically significant associations between women's attitudes and any of their characteristics.