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Healthy Behavior and its Relationship with the Attitude towards Reproductive Health among Saudi Females

"السلوك الصحي وعلاقته بالاتجاهات نحو الصحة الإنجابية لدى السعوديات"

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Abstract:

This study aimed to investigate healthy behavior and its relationship with the attitude toward reproductive health. The sample comprised (490) female participants (23.1% single), (61% married), (12.2% divorced) and (3.7% widows) of whom (42.2% are employed, 43.7% are unemployed and 13.5% are students) who were corresponded randomly via an electronic link. An analytic descriptive approach was applied, and a healthy behavior scale and an attitude towards reproductive health behavior scale were completed by the study sample.

The results showed no significant differences in the means of healthy behavior as per age variable on the total score of the scale, while there were significant differences in the dimensions (care about the body, public hygiene, dealing with medicine and drugs). Results indicated that there were significant differences in the means of healthy behavior according to the variables of social status and employment on the total score of the scale and the dimensions. There were significant differences in the mean score of attitudes towards reproductive health as per employment state, and age on the total score of the scale, while there were no significant differences as per social status variable on the total score. There was no significant relation between healthy behavior and attitude towards reproductive health.

Keywords: **Attitudes. Behavior. Healthy behavior. Reproductive Health**

السلوك الصحي وعلاقته بالاتجاهات نحو الصحة الإنجابية لدى السعوديات

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الملخص:

تهدف الدراسة إلى التعرف على السلوك الصحي وعلاقته بالاتجاه نحو الصحة الإنجابية. اشتملت العينة على (٤٩٠) مشاركة، (٢٣.١٪، عزباء)، (٦١٪، متزوجة)، (١٢.٢٪، مطلقة) و (٣.٧٪، أرملة) منهن (٤٢.٢% عاملة و٤٣.٧% غير عاملة و١٣.٥% طالبة). تمّ تطبيق المنهج الوصفي التحليلي في الدراسة الحالية كما تمّ استكمال مقياس السلوك الصحي ومقياس الاتجاه نحو الصحة الإنجابية من قبل عينة الدراسة. أظهرت النتائج عدم وجود فروق ذات دلالة إحصائية في متوسطات السلوك الصحي وفق متغير العمر وذلك على الدرجة الكلية للمقياس، بينما كانت هناك فروق ذات دلالة إحصائية على الأبعاد (العناية بالجسم، النظافة العامة، التعامل مع الأدوية والعقاقير). أشارت النتائج إلى وجود فروق ذات دلالة إحصائية في متوسطات السلوك الصحي وفق متغيري الحالة الاجتماعية والوظيفة على الدرجة الكلية للمقياس. كشفت النتائج عن فروق ذات دلالة إحصائية في متوسط درجات الاتجاه نحو الصحة الإنجابية وفقاً للحالة الوظيفية والعمر على مجموع درجات الاتجاه نحوه الصحة الإنجابية بينما لم تكن هناك فروق ذات دلالة إحصائية وفق متغير الحالة الاجتماعية على الدرجة الكلية للاتجاه نحو الصحة الإنجابية. كشفت النتائج عن عدم وجود علاقة ذات دلالة إحصائية بين السلوك الصحي والاتجاه نحو الصحة الإنجابية لدى أفراد عينة البحث.

الكلمات المفتاحية: الاتجاهات. السلوك. السلوك الصحي. الصحة الإنجابية.

Background:

Healthy behavior like other kinds of behavior is acquired during one's interaction with others and his/her physical, social, economic, and educational environments (Diehl et al., 2012).

Our behavior is crucial in establishing our healthy state, for example, lifestyle affects by (50%), environment by (20%), genetic disposition by (20%), and health services by (10%), (Dosedlová et al., 2015).

Hence, promoting an individual's good health moves beyond focusing on an individual's behavior towards a large range of social and environmental interventions. Health promotion as well supports governments, communities, and individuals to cope with and face health challenges (WHO-1,2021).

Today the concept of health has more emphasis on the behavior related to health and ways to protect it, where the health of individuals, families, and society can be provided, maintained, and promoted through this behavior. On the other hand, health improvement focuses mainly on preventing disease and adopting an individual's self-care skills and abilities (Geranmayeh et al.,2020).

Healthy behavior is defined as an activity aimed to prevent disease, detect it or improve health and achieve well-being. (Janowski et al.,2013) defined healthy behavior as a set of various patterns, acts, and habits related to maintaining health (Conner, 2015).

There are multiple theories of behavior associated with healthy behavior such as the theory of drive to protection which results from two kinds of cognitive processes, assessing risk which depends on sources of fear and the factors which increase or decrease nonadaptive responses, and considering encountering which is based on individual's responses during confrontation of dangers and factors leading to adaptive responses (Conner, 2015). The theory of planned behavior predicts an individual's intention to engage in a behavior at a specific time and place. The central factor in the TPB is the individual's intention to perform a given behavior (Ayana et al.,2021). It has three direct determinants of intention these are attitude, subjective norm, and perceived behavioral control (Banerjee & Ho,2020). It has also an indirect predictor of intention these are behavioral belief and outcome evaluation, normative, and motivation to comply and control belief and power (Si et al.,2019).

Since the last decades, the value of studying healthy behavior has been demonstrated, as it is shown that it is the basis of many physical diseases, accordingly, many studies have focused on its relationship with anxiety and mortality rates (Burke et al.,2007), beside sits relationship with high rates of

blood cholesterol and glucose (Wang et al., 2007), and cancerous tumors (Rabin & Pinto, 2006).

For a healthy society or population, it is necessary to maintain reproductive health. Nowadays, adolescents experience puberty at younger ages than the previous generations and this allows earlier initiation of sexual activity, which is associated with sexual and reproductive health problems like unsafe sex, early marriage, unwanted pregnancy, abortion, and sexually transmitted infections like HIV (Parent et al., 2016, Menshawy et al.,2021). Thus, it is essential to practice good hygiene habits at this stage itself. To maintain our health, one must keep hygiene at a personal level (personal hygiene) as well as at the community level (social hygiene).

Most unhealthy behavior can directly affect reproductive health and increase fertility-related disorders (Trieu et al.,2011). Adolescents' poor (SRH) outcomes are frequently caused by a shortage of adequate (SRH) knowledge in addition to a dearth of accessible youth-friendly facilities that could provide SRH services and products (Korri et al.,2021). (SRH) education about this critical period can enhance adolescents' health and their ability to face the challenges related to it (Saghi et al., 2016, Menshawy et al.,2021).

Reproductive health is the most important component of human health. For both men and women, reproductive health is the basic aspect of overall health. Reproductive health has gained growing concern and recognition for being included among the main objectives approved by the international community, adding to considering it essential for achieving the targets of the Sustainable Development Goal (SDG) (Nabah,2020).

Reproductive health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and its functions and processes (WHO & UNDP, 2017). Reproductive health implies that people can have a satisfying and safe sex life and that they can reproduce and have the freedom to decide if, when, and how often to do so (WHO-2,2021). In addition to helping with delivery arrangements, in addition to special care if needed (Nanbakhsh et al., 2008).

Reproductive health consists of seven domains which are physical health, physical functioning, cognitive functioning, psychological health, sexual health, vitality, and pain and discomfort. Another categorization consists of adolescent health; child health; maternal, fetal, and perinatal health; population and health; and women's sexual and reproductive health (Woldearegay,2021).

Individual behavior affects healthy results, especially the reproductive one which is affected by risky behavior. Researchers found that mother's smoking could contribute by 20% to producing dead newborn babies (Flenady et al., 2011), other studies found a relationship between mother's smoking and increased infection by STD (Hansen et al., 2010).

There is evidence that mothers' health state is improved when quitting smoking even if they started this behavior at the age of 60 (Lee-Chiong, 2006). The need to stop smoking during pregnancy was indicated by Olander et al., (2018). Several participants in the age range 18-44 years reported that they suffered from diabetes during pregnancy (GDM) (Kieffer et al., 2006). A big percentage of pregnant women did not know that obesity raises the risks of delivering a stillborn baby plus that of abortion (Mehanna et al., 2020). Also, it was confirmed that younger age was associated with practicing highly risky behavior (Miller et al., 2013). Most youths are not bound by healthy conduct (Department of Health &Human Services, 2000). This confirms the importance of giving greater attention to the issue of healthy behaviors and raising awareness about it due to its connection to reproductive health.

Beletew et al., (2020) indicated that there is a link of stigma to the respondent's knowledge about reproductive health. Mbeba et al., (2012) indicated that not having access to health services is due to a lack of privacy, in addition, female respondents reported the lack of agencies assigned to discuss sex issues such as contraception methods and STDs.

Kalolo & Kibusi, (2015) pointed out that (15.3%), of the respondents have many partners at the same time, (50.6%) did not use condoms in the last sexual contact, (and 15.3%) practice sex before 14 years.

The results of Masouni et al., (2017) study indicated the urgent need to provide training in the topic of reproductive health to school female students. Bylund et al., (2020) pointed out the difficulty of validating medically the services provided to male adolescents.

Upon what have said, it is shown the value of practicing healthy behavior by investigating and clarifying its relationship with reproductive health. It is confirmed that many wrong healthy behavior patterns create unhealthy behaviors and unhealthy habits (Huntsinger & Luecken, 2004).

Health problems, health needs, and promoting health have top priorities in research worldwide (Aghamolaei & Tavafian, 2013). The study by Soleymani et al., (2015) was conducted to explore the understanding of post-graduate students and their beliefs about sexual and reproductive health at a public university in Malaysia, which concluded that most of those students know that AIDS is a disease transferred by sexual contact.

The study by Yard et al., (2017) conducted in Ethiopia on Ambo University students showed that most of them know that AIDS is a STD.

Contrary to this, the study of Mbugua & Karonjo, (2018) on the knowledge of Kenyan students about reproductive health showed that less than half of them know that drugs use and smoking affect reproductive health. Finlay et al., (2020) study in Africa Sub-Sahara showed that adolescents lack proper knowledge about menstruation and STDs except AIDS.

Farahani's (2020) study found interesting results related to the impact of sex on reproductive health knowledge and its impact, as it turned out that multiple partners, incorrect condom use, and young age when having sex were more common among males than females. Therefore, the need to expand awareness, skills, and training related to reproductive health to avoid female exposure to greater risks and to enable them to access sexual and reproductive health services.

The importance of reproductive health awareness and providing individuals with health information about themselves and about the environment they live in, and healthy practices may lead individuals to be more capable to protect themselves and their society against the harms of health problems and to lead their society to a better future.

The concepts of healthy behavior and reproductive health among females is a comparatively new concept, in Saudi Society in particular, the matter that urges researchers to investigate such variables in depth, as the Saudi Library lacks such research that deals with demographic and psychological factors related to such variables in the Arab societies in general and the Saudi society in specific.

To address these gaps in the literature, a recent study aims to answer four questions regarding the influence of selected factors on Healthy Behavior and its relationship with the Attitude toward Reproductive Health among Saudi Females, and these questions are as follows:

1- What is the health level among a sample of Saudi females?
2- Are there significant differences in the means of healthy behavior among the sample of Saudi females attributed to the variables (age, social status, and employment state)?
3- What is the level of attitude towards reproductive health among the sample of Saudi females?
4- Are there significant differences in the means of attitude towards reproductive health among the study sample attributed to the variables (age, social status, employment state)?

5- Is there a significant relationship between the means of healthy behavior and attitude towards reproductive health from the views of the Saudi female sample?

Objectives:

1- Identifying healthy behaviors level among Saudi females.
2- Identifying the effect of (age, social status, and employment state) on healthy behaviors.
3- Examining the level of attitude towards reproductive health among Saudi females.
4- Identifying the effect of (age, social status, and employment state) on the attitude towards reproductive health.
5- Clarifying the relationship between health behavior and attitude towards reproductive health from the views of Saudi females.

Study Value:

1- Defining individual behaviors and their relationship with the attitude towards reproductive health.
2- Identifying female awareness regarding reproductive health concepts.

Method & Procedure:

The researcher applied the analytic descriptive approach suitable for the study's nature.

Study Community & Sample:

The sample contained (490) females from the Saudi Society, during the first semester of the school year (2020/2021) chosen randomly via e-link.

Table (1)

Shows the distribution of respondents as per (age-social status & employment state).

Variable		No.	%	Total
Age	18-25	93	19.0	490
	26-32	56	11.4	
	33-40	220	44.9	
	41 or more	121	24.7	
Social Status	Single	113	23.1	490
	Married	299	61.0	
	Divorce	60	12.2	
	Widow	18	3.7	
Employment	employed	210	42.9	490
	Student	66	13.5	
	Unemployed	214	43.7	

Tools:

First: Healthy Behavior Scale:

The researcher prepared a scale for healthy behavior to identify the main habits and behavior of the respondents, which included (50) items in their initial form.

The study of Kikuchi et al., (1999) helped design the scale items. After the scale was subjected to assess and perform the required amendments to verify its item's suitability for the study purposes, the researcher retained (42) items distributed to 4 dimensions (care about the body– care about one's public hygiene – dealing with medicines & drug – mental and social dimension).

The Scale Validity:

The scale validity was verified by computing the correlation matrix of its items with the total score for each dimension as shown in Table (2) which shows that all values of items' correlation coefficients with the total score were significant and assured that this tool has construct validity and it measures healthy behavior among Saudi female Sample.

Table (2)

Results of Pearson correlation coefficient of the correlation matrix of healthy behavior items with the total score of each dimension:

Care about public hygiene							
Item	Value r	Item	Value r	Item	Value r	Item	Value r
1	0.471**	1	0.412**	1	0.460**	1	0.483**
2	0.599**	2	0.533**	2	0.437**	2	0.338**
3	0.619**	3	0.375**	3	0.682**	3	0.629**
4	0.666**	4	0.356**	4	0.657**	4	0.690**
5	0.731**	5	0.393**	5	0.727**	5	0.656**
6	0.713**	6	0.610**	6	0.712**	6	0.500**
7	0.674**	7	0.480**	7	0.445**	7	0.690**
8	0.554**	8	0.422**	8	0.587**	8	0.573**
		9	0.627**			9	0.494**
		10	0.480**			10	0.532**
		11	0.572**			11	0.660**
						12	0.648**
						13	0.685**
						14	0.484**
						15	0.583**

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Reliability of Healthy Behavior Scale:

The researcher computed the reliability of the healthy behavior scale on the total score and on the scale, subsidiary dimensions by Cronbach Alpha reliability coefficient. The dimension of body care was (0.78%), the dimension of care about public hygiene (0.772), and the dimension of dealing with drugs was (0.785), the dimension of (mental & social) was (0.843). This indicates a high-reliability tool.

Second: Attitude towards Reproductive Health Scale:

The researcher prepared a scale for measuring attitudes towards reproductive health consisting of (18) items in its initial form, through the benefit of the studies of Mbugua & Karonjo, 2018; Yared et al., 2017; Soleymani et al., 2015; Finlay et al., 2020. After performing the assessment and amendments, (16) items were retained and distributed through (3)

dimensions (knowledge about reproductive health – the degree of applying reproductive concepts – parents' role in developing reproductive health).

Validity of attitude towards Reproductive Health Scale:

This scale validity was verified by computing the correlation tool's items matrix with the total score for each dimension. The results showed that all item's correlation values with the total score were significant, this indicates a tool with a high validity and measures the attitude towards reproductive health among the Saudi sample as shown in the table (3).

Table (3)
Results of Pearson correlation of items' matrix of Attitude Towards Reproduction Health scale:

Degree in applying reproductive health concepts					
Items	R-Value	Items	R-Value	Items	R-Value
1	0.702**	1	0.313**	1	0.892**
2	0.349**	2	0.395**	2	0.616**
3	0.247**	3	0.298**		
4	0.586**	4	0.590**		
5	0.466**	5	0.406**		
		6	0.493**		
		7	0.522**		
		8	0.397**		
		9	0.524**		

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Reliability of attitude towards Reproductive Health Scale:

The degrees of reliability on Cronbach Alpha ranged between (0.69-0.70). while the reliability coefficient on the total score was (80%). Cronbach Alpha of the dimension (Knowledge about reproductive health was (0.69), the dimension (the degree of applying the concepts of reproductive health) was (0.714), the dimension of parents' role in developing reproductive health (0.686), and on the total score (0.796). This indicates that this tool enjoys a good reliability degree.

Results & Discussion:

The results of the 1st question: What is the health level among a sample of Saudi females?

To answer this question, the researcher computed the numbers, means, and SDs of the level of healthy behavior from the Saudi female perspective. The results showed that the level of healthy behavior was high, with a mean

total score of (3.75) and SD of (0.41). It was also demonstrated that the dimension of (dealing with medicine & drugs) was on the top with a high mean (4.18), followed by the dimension (mental and social) with a high mean (4.10), followed by the dimension (care about public hygiene) with a high mean (3.49), at the 4th rank was (care about the body) with a mean (3.20).

The results of the 1st question showed that there were high levels of healthy behavior among the sample of Saudi females, whether for dealing with medicine or caring about public hygiene. The researcher believes that these results are due to the kingdom's efforts to provide a high health level for its citizens. These results disagree with what Arousell & Carlbom, (2016) found, this latter study found that the experience of committed Muslims about health care and reproductive health is limited.

2- Results of the 2nd question: Are there significant differences in the means of healthy behavior among the sample of Saudi females attributed to the variables (age, social status, and employment state)?

Out of this question, (1-3) null hypotheses were derived, and the results were as follows:

Results of 1sthypothisis:

There are no significant differences at ($0.05 \geq \alpha$) in the means of healthy behavior among the sample of Saudi females' attributes to the variable of age.

To check the 1sthyposis validity means and SDs were computed as per variable of age as well as the results of one-way variance as in table (4).

Table (4):

Results of one-way variance analysis of the differences in health behavior as per age:

Dimensions	18-25 (n=93)		26-32 (n=56)		33-40 (n=220)		41 & more (n=121)		F	Significance
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Care about body	2.84	0.48	3.12	0.59	3.44	0.76	3.11	0.59	20.023	0.000**
Care about public hygiene	3.46	0.47	3.33	0.43	3.49	0.51	3.57	0.51	3.182	0.024*
Dealing with drugs	4.43	062	4.02	0.65	4.13	0.65	4.17	0.69	6.190	0.000**
Mental & Social dimension	4.12	0.48	4.01	0.61	4.09	0.49	4.16	0.35	1.436	0.232
Total Score	3.71	0.40	3.62	0.40	3.79	0.41	3.75	0.42	2.602	0.051

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (4), it is shown that there are no significant differences in the means of healthy behavior as per the dimension of age on the total score of the healthy behavior and the mental and social dimension.

There were differences in the dimensions of (care about the body, care about public hygiene, and dealing with drugs). To identify the cause of differences and test significance trends, the researcher applied the Tukey test as in Table (5).

Table (5):

Results of applying the Tukey test to identify the significant trend as per age:

Dimensions	Age	18-25 year	26-32 year	33-40 year	41 or more
Care about the body	18-25		-0.28451	-0.59977*	-0.27142*
	26-32			-0.31526*	0.01310
	33-40				0.32836*
	41 or more				
Care about public hygiene	18-25		0.12729	-0.03493	-0.11480
	26-32			-0.16222	-0.24208*
	33-40				-٠.07986
	41 or more				
Dealing with drugs	18-25		0.41047*	0.30552*	0.25924*
	26-32			-0.10495	-0.15123
	33-40				-0.04628
	41 or more				

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (5) shows that the differences were significant in favor of higher means and that the differences were among the respondents whose ages were (18-25), those of ages (33-40) & 41 years or more, in favor of the age group (33-40) and (40 or more), on the dimension (care about public hygiene among the age groups (26-32) & (41 or more years), in favor of the latter group, on the dimension (dealing with drugs) between the age groups (18-25), (26-32), (33-41) & (41 or more) in favor of the group (18-25). According to the significant differences in the means of healthy behavior among the sample, this leads to rejecting the 1st null hypothesis on the dimensions (care about the body, care about public hygiene, and dealing with drugs), while they were accepted on the total score of the healthy behavior and mental & social dimension. This result is logical from the researcher's views because there are individual differences in caring about thebody and public hygiene as well as in dealing with drugs which are governed by factors (age, education level … etc.). This can be explained on the basis that the higher age of the woman, the higher degree of body care she will have and the higher binding by healthy behavior in general.

Moreover, being more aware of how to deal with medicine and knowing what is healthy and what is not due to years of experience. These results agree with those of (Wright et al., 2015) who pointed out the value of woman's awareness of medical examination in the U.S.A.

Results of the 2ndhypothesis:

There are no significant differences at ($0.05 \geq \alpha$) in the means of healthy behavior from the respondent's views resulting from the social status variable.

Table (6)

presents the results of applying one – way variance method for the differences in the healthy behavior as per social status variable:

Dimensions	Single (n=113)		Married (n=299)		Divorce (n=50)		Widow (n=121)		F	Significance
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Care about the body	2.99	0.59	3.31	0.76	3.11	0.52	3.17	0.19	6.481	0.000**
Care about public hygiene	3.43	0.50	3.54	0.51	3.38	0.47	3.37	0.35	2.765	0.041*
Dealing with drugs	4.35	0.66	4.13	0.67	4.27	0.57	3.76	0.62	6.065	0.000**
Mental & Social dimension	4.17	0.37	4.11	0.49	4.08	0.48	3.69	0.45	5.527	0.001**
Total Score	3.73	0.37	3.77	0.44	3.71	0.39	3.50	0.29	2.691	0.046*

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (6) shows that there are differences significantly in the means of healthy behavior as per social status on the total score of healthy behavior and other variables. To know the cause of differences, and test significance direction, the researcher applied the Tukey test as in Table (7).

Table (7):

Results of using the Tukey Test to identify the significance direction as per social status variable.

Dimensions	Social Status	Single	Married	Divorcee	Widow
Care about the body	Single		-0.32097*	-0.12577	-0.18689
	Married			0.19519	0.13408
	Divorcee				-0.06111
	Widow				
Care about public hygiene	Single		-0.10936	0.04395	0.06011
	Married			0.15331	0.16947*
	Divorcee				0.01616
	Widow				
Dealing with drugs	Single		0.22175*	0.08094	0.59483*
	Married			-0.14082	0.37307
	Divorcee				0.51389*
	Widow				
Mental & Social Dimension	Single		0.06295	0.08665	0.47850*
	Married			0.02369	0.41555*
	Divorcee				0.39185*
	Widow				
Total Score for Social Status	Single		-0.03640	0.02144	0.23664
	Married			0.05784	0.27304*
	Divorcee				0.21520
	Widow				

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (7) shows that the differences were significant in favor of the higher means, as the dimensions comparisons of the differences in that of (care

about the body) as per social status variable indicates that differences were among the single respondents and those who are married in favor of the latter group, on the dimension (care about public hygiene) among the married respondents and the widow ones were in favor of the former group, on the dimension (dealing with drugs among the group of (single/ divorcee female respondents and those who were widow in favor of the former group, while in the dimension of (mental & social) among the group of (single, married & divorce) and those who were widow in favor of the former group. While on the total score, the differences between the married group and the widowed ones were in favor of the former group.

The significant differences lead to rejecting the 2nd null hypothesis on the total score of healthy behavior and the other dimensions.

Accordingly, it reveals the differences in healthy behavior as for the dimension (care about the body) and (care about public hygiene) and the total score of the healthy behavior were in favor of the married group. The cause of this in the researcher's opinion is that the married woman frequently visits doctors from the beginning of conception up to delivery and cares for the follow-up services for herself and her baby.

Results of the 3rd hypothesis:

There are no significant differences at ($0.05 \geq \alpha$) in the means of healthy behavior among the sample of Saudi females attributed to employment state.

Table (8):

Results of one-way variance analysis test for the differences in healthy behavior means according to employment state:

Dimensions	Employee (n=210)		Student (n=66)		Unemployed (n=214)		F	Significance
	Mean	SD	Mean	SD	Mean	SD		
Care about body	3.38	0.79	3.01	0.45	3.09	0.62	13.269	0.000**
Care about public hygiene	3.57	0.51	3.51	0.29	3.41	0.53	5.579	0.004**
Dealing with drugs	4.12	0.68	4.55	0.45	4.13	0.67	12.288	0.000**
Mental & Social dimension	4.16	0.46	4.14	0.24	4.04	0.52	4.003	0.019*
Total Score	3.81	0.45	3.80	0.17	3.67	0.42	7.097	0.001**

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (8) shows that there are significant differences in the means of healthy behavior as per employment state on the total score of healthy behavior as well as on the other dimensions, as the value of (f) computed on the total score of healthy behavior (7.097) at a significant level (0.001), to know the cause of differences and test significance direction, the researcher applied Tukey test as in table (9).

Table (9):

Results of applying the Tukey test to know the significance direction as per employment state.

Dimensions	Employment Status	Employee	Student	Unemployed
Care about body	Employee		0.37505*	0.29574*
	Student			0.07932
	Unemployed			
Care about public hygiene	Employee		0.06029	0.15968*
	Student			0.09939
	Unemployed			
Dealing with drugs	Employee		-0٠.43220*	0.01293
	Student			0.41927*
	Unemployed			
Mental & Social Dimension	Employee		0.01651	0.12419*
	Student			0.10768
	Unemployed			
Total Score of healthy behavior	Employee		0.00491	0.14167*
	Student			0.13676*
	Unemployed			

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (9) shows that there are significant differences in favor of the higher means, as dimensions comparisons of the differences in the scores of (care about body) as per employment state that differences between employee respondent and (student/ unemployed) were in favor of the former group, and on the dimension of (care about public hygiene between the employee respondents on the dimension (dealing with drugs) between the student respondents and the group (employee & unemployed) in favor of the former group, while on the (mental & social) dimension between who were (employee) and (unemployed in favor of the former group, while on the total score, comparison was between who are (employee/ student) and (unemployed) in favor of the former group, according to these significant differences, this leads us to reject the 3rd null hypothesis on the total score of healthy behavior and all other dimensions.

Upon what has been stated above, it is shown that there are differences of significance among the sample respondents as per employment state in favor

of the employed woman. The researcher explained this result from the fact that employed woman is more aware than unemployed one concerning caring about their public hygiene and realizing the mental and social aspects.

Results of the third question:

What is the level of attitude towards reproductive health among the sample of Saudi females?

To answer this question, the researcher computed numbers, means, and SDs of the direction level toward reproductive health from the views of the Sample. The results indicated that the attitude level was high among this sample, as means of the total score of attitudes towards reproductive health (3.48), SD's (0.39). On the top rank was the dimension (parents' role in developing reproductive health), with a high mean (3.72), followed by (knowledge about reproductive health) with a high mean (3.69). These results agree with the study (Jasmi,2020) which concluded that there is good awareness of health needs for reproductive health. Followed by the dimension (degree of applying reproductive health concepts) with a medium score and mean (3.02).

Despite what the results of the 3rd question indicated about the high attitude towards reproductive health and the parent's role in developing reproductive health, as well as a high level of knowledge about reproductive health, the degree of applying reproductive health concepts was medium.

This result agrees with that of both (Bylund et al., 2020), and (Mbeba et al., 2012) who stated the difficulty to access health services due to a lack of privacy and the unavailability of a facility assigned to discussing sex matters such as contraception methods, STD's.

Results of the 4thquestion:

Are there significant differences in the means of attitude towards reproductive health among the study sample attributed to the variables (age, social status, employment state)?

Out of these questions, the null hypotheses originated:

Results of 4thhypothis:

There are no significant differences at ($0.05 \geq \alpha$) in the means of attitude towards reproductive health among the Saudi female sample as per age variable as in Table (10).

Table (10).

Results of one-way variance analysis of the differences in the means of attitude towards reproductive health as per age:

Dimensions	18-25 (n=93)		26-32 (n=56)		33-40 (n=220)		41 & more (n=121)		F	Significance
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Knowledge about reproductive health	3.69	0.49	3.76	0.45	3.71	0.38	3.60	0.41	2.491	0.060
Degree in applying RH concepts	3..03	0.28	3.19	0.45	3.05	0.55	2.86	0.46	7.114	0.00**
Parent's role	3.56	0.60	3.93	0.62	3.76	0.66	3.69	0.65	4.326	0.005**
The total score of reproductive health	3.43	0.37	3.63	0.36	3.51	0.40	3.38	0.35	6.360	0.00**

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (10) shows that there is significant reproductive health as per age variable on the total score and other dimensions except that of (knowledge about reproductive health, as the value of F on the total score of attitudes

towards reproductive health (6.360) at (0.000). To explain the cause of these differences and test significance direction, the researcher applied Tukey Test as in Table (11).

Table (11)

Results of the Tukey Test concluded to know significant direction as per age variable:

Dimensions	Age	18-25 year	26-32 year	33-40 year	41 or more
Degree in applying reproductive health concepts	18-25 year		0.15702	0.01352	0.17211*
	26-32 year			0.14351	0.32914*
	33-40 year				0.18563*
	41 or more				
Parent's Role in developing reproductive health	18-25 year		0.36943*	0.20450	0.12681
	26-32 year			0.16494	0.24262
	33-40 year				0.07769
	41 or more				
Total Score of reproductive health	18-25 year		٠.19895*	٠.08075	٠.04411
	26-32 year			٠.11820	٠.24306*
	33-40 year				٠.12485*
	41 or more				

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (11) shows that differences in the total score of the scale of attitude towards reproductive health among the study sample whose ages are (18-25; 41 or more) and those of (26-32) years were in favor of the latter group. Comparisons also indicated that differences in the scores of the dimension (degree of applying reproductive health concepts) as per age variable indicated that the respondents whose ages were (18.25, 26-32); (33-40) and those of (41 or more) years were in favor of the former group. This result agreed with (Miller et al., 2013), which pointed out that a woman's age is a major determinant of her reproductive health dimension, comparisons of the differences in scores on the dimension (parents' role in developing reproductive health) as per age, showed that the respondents whose ages were (18-25) and those of (26-32) years were in favor of the latter group. This result agreed with that of (JIB & ED, 2011), and disagreed with that of (Masoumi et

al., 2017) which showed no significant differences in the degree of knowledge about reproductive health attributed to age variable.

Consequently, and due to the significant differences, the 4th null hypothesis on the total score and on the dimension (parents' role) and (degree of applying reproductive concepts) was rejected, while it was accepted on the dimension (Knowledge about reproductive health).

Results of the 5th hypothesis:

There are no significant differences at ($0.05 \geq \alpha$) in the means of attitude towards reproductive health from the respondents' views in the Saudi society as per social status variable, as in the following table:

Table (12)

Results of one-way variance analysis of the differences in the means of attitude towards reproductive health as per social status:

Dimensions	Single (n=113)		Married (n=299)		Divorcee (n=50)		Widow (n=121)		F	Significance
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Knowledge about reproductive health	3.54	0.33	3.78	0.37	3.59	0.63	3.49	0.48	12.079	0.000**
Degree in applying reproductive health concepts	3.07	0.32	3.02	0.55	2.87	0.33	3.11	0.58	2.428	0.065
Parents' Role in developing reproductive health	3.67	0.66	3.70	0.63	3.83	0.70	4.03	0.65	2.215	0.086
Total score	3.43	0.31	3.50	0.39	3.43	0.48	3.54	0.43	1.377	0.249

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (12) shows that there are no significant differences in the means of attitude towards reproductive health among the study sample as per social status variable on the total score of attitudes and the other dimensions except

(knowledge about reproductive health) as the F value computed on the total score was (1.377) at a significant level of (0.249).

To know the source of differences and test the significance direction of the dimension (Knowledge about reproductive health), the researcher used Tukey Test as in Table (13).

Table (13)

Results of Tukey Test to know significance direction as per social status variable:

Variable	Social status	Single	Married	Divorcee	Widow
Knowledge about reproductive health	Single		0.23543*	0.05018	0.05093
	Married			0.18525*	0.28636*
	Divorcee				0.10111
	Widow				

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (13) shows that differences were significant in favor of higher means, as indicated by dimensions comparisons of the differences in the dimension (knowledge about reproductive health) among the study sample as per the variable (social status). Differences were between the respondents with social status (single, divorcee & widow) and those who were (married) in favor of the latter group, which led the researcher to reject the 5th null hypothesis on the dimension (knowledge about reproductive health) while accepting it on the total score of attitudes towards reproductive health and the two dimensions (applying reproductive health concepts and parents' role in developing reproductive health).

Therefore, the result of the 5th hypothesis is logical concerning the means differences in healthy behavior which were in favor of the group of married women. Heck et al., (2002) found that women's reproductive health is affected by many demographic factors such as social conditions, cultural practices, and education.

Results of the 6th hypothesis:

There are no significant differences at ($0.05 \geq \alpha$) in the means of attitude towards reproductive health among the sample of Saudi females resulting from social status variable as in the following table:

Table (14)

Results of one-way variance analysis of the differences in attitude towards reproductive health from the sample views as per social status:

Dimensions	Employee (n=210)		Student (n=66)		Unemployed (n=214)		F	Significance
	Mean	SD	Mean	SD	Mean	SD		
Knowledge about reproductive health	3.66	0.37	3.44	0.30	3.79	0.46	20.106	0.000**
Degree in applying reproductive health concepts	3.09	0.55	3.03	0.30	2.94	0.4°	5.006	0.007**
Parent's Role in developing reproductive health	3.83	0.69	3.43	0.68	3.71	0.57	9.871	0.000**
The total score of reproductive health	3.53	0.40	3.30	0.40	3.48	0.35	8.717	0.000**

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (14) shows that there were significant differences in the means of attitude towards reproductive health among the study sample as per employment state on the total score of the attitude and the other dimension as F value was (8.717) at a significant level (0.000). To know the source of differences and test significance direction researcher used Tukey Test as in the following table:

Table (15)

Results of using the Tukey Test to know significant direction as per employment state:

Dimensions	Employment State	Employee	Student	Unemployed
Knowledge about reproductive health	Employee		0.21870*	-0.13536*
	Student			-0.35406*
	Unemployed			
Degree in applying reproductive health concepts	Employee		0.05257	0.14699*
	Student			0.09442
	Unemployed			
Parent's Role in developing reproductive health	Employee		0.39913*	0.12067
	Student			-0.27846*
	Unemployed			
The total score of reproductive health	Employee		0.22347*	0.04410
	Student			-0.17937*
	Unemployed			

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

Table (15) shows that there are significant differences in favor of the higher means because dimensions comparisons of the differences in (knowledge about reproductive health as per the variable of employment state were among the respondents who were (employees, unemployed) and who were (students) in favor of the former group, and the differences on the dimension (degree of applying reproductive health concepts) among who were (unemployed) in favor of the former group, and on the dimension (parent's role in developing reproductive health) and the total score between whose employment state was (student) and (employee & unemployed) in favor of the latter group. Due to these significant differences, the 6th null hypothesis on the total score of attitudes towards reproductive health and the other dimensions was rejected.

This result is congruent with the result of the 3rd hypothesis relating to the differences in healthy behavior means as per employment state.

Fifth Question:

Is there a significant relationship between the means of healthy behavior and attitude towards reproductive health from the views of the Saudi female sample?

Results of the 7th hypothesis:

There is no significant relationship at ($0.05 \geq \alpha$) between the means of healthy behavior and attitude towards reproductive health from the sample perspectives.

To validate this (7^{th}) hypothesis, the researcher used Pearson correlation coefficients to clarify the relationship between health behavior and attitude toward reproductive health as in the following table (16).

Table (16)

Results of Pearson correlation coefficients of the relationship between health behavior and attitude toward reproductive health:

Variables	Care about body	Care about public hygiene	Dealing with drugs	Mental social dim.	The total score of knowledge about the reproductive health scale	Knowledge about reproductive health	Applying reproductive health concepts	Parent's Role in developing reproductive health	The total score of the scale of reproductive health
Care about body		0.573**	0.030	0.440**	0.728**	0.251**	0.097*	0.103*	0.190**
Care about public hygiene		1	0.238**	0.557**	0.794**	0.160**	0.064	0.057	0.117**
Dealing with drugs			1	0.357**	0.586**	-0.028	-0.448**	0.216**-	-0.319**
Mental social dim.				1	0.779**	0.189**	-0.045	0.010	0.056
The total score of knowledge about the reproductive health scale					1	0.196**	-0.133**	-0.023	0.003
knowledge about reproductive health						1	0.165**	0.335**	0.622**
Degree in applying reproductive health concepts							1	0.399**	0.703**
Parent's Role in developing reproductive health								1	0.851**
The total score of the scale of reproductive health									1

Note: ** Correlation is significant at the 0.01 level - * Correlation is significant at the 0.05 level

From table (16), it is shown that:

- There is no significant relationship between the total score of healthy behavior and (attitude towards reproductive health, the parent's role, and dealing with medicine and drugs).
- There is no significant relationship between caring about thebody and (dealing with medicine & drugs).
- There is no significant relationship between (care about public hygiene and (the degree of applying reproductive concepts & parents' role in developing reproductive health).
- There is no significant relationship between (the mental and social dimensions) and that of (applying reproductive health concepts, and the total score of attitudes towards reproductive health.
- There is a significant positive relationship in all the other dimensions.

Due to the lack of a significant relationship between the total score of healthy behavior and the total degree of attitude towards healthy behavior, the 7^{th} null hypothesis was accepted which stated, there is no significant relationship between healthy behavior and attitude towards reproductive health.

This result disagrees with what (Lee-Chiong, 2005) confirmed that there is evidence that the health state is generally improved because of stopping smoking. Flenady et al., (2011) found that a mother's smoking could contribute to 20% of delivering newborn babies. It also disagrees with (Mbugua & Karonjo, 2018) who concluded that about half of the students know that using illegal substances and smoking alike affects reproductive health. Also, it disagrees with the results of (Jasim, 2020) which concluded that the reproductive health of female adolescents is affected by their sexual acts and bad health lifestyle.

Conclusion & Recommendations:

This study provides insights into the reproductive health of Saudi females. Its findings present an understanding of females' attitudes, experiences, knowledge, practices, and concerns regarding their healthy behaviors & reproductive health. Relating to the demographic distribution of the study sample which included (490) Saudi women, most of them were aged (33-40) years (n=220), namely 44.9% of the total sample. As to social status (0.61) were married, and for employment state (43.7%) were (unemployed). Generally, women appeared to gain solid information and have a high level of healthy behaviors when dealing with medicine and caring about public hygiene. This is- from the researcher’s point of view- due to the Kingdom's efforts to provide a high health level for its citizens of all ages. The study also concluded that there was good awareness among the respondents towards the

health requirements of reproductive health. As reproductive health is directly affected by social development, the study indicated that demographic factors affect healthy behaviors per age, social and employment state. The study also found no evidence of a relationship between health behavior and attitude toward reproductive health.

The researcher agrees that there is a need to improve reproductive health in the future, and early awareness of women on social, demographic, healthy, and sexual health in this regard and providing necessary related information before marriage and suggests some recommendations as follows:

- Preparing integrated curriculums for all schooling stages covering reproductive health, awareness, and follow-up to ensure extending youth-friendly programs (males & females) of high quality.
- Study of an educational and training program based on improving university students' awareness about reproductive health.
- Introducing the concepts of reproductive health in a basic way in curriculums, which includes the effects of the negative environment on human acts generally and those of women.
- Conducting studies and research which concern the factors affecting health acts and their relationship with youth reproductive health.

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