Assessing the Physical, Psychological, and Spiritual Aspects of Self-Care Behaviors for Managing Minor Discomforts During Pregnancy in Karbala City

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Abstract

Background: Self-care behavior is crucial for maintaining the health and well-being of pregnant women. Hormonal changes during pregnancy can lead to minor discomforts that may impact a woman's quality of life. Proper self-care practices help in managing these discomforts effectively.

Objectives: This study aims to evaluate the self-care behaviors of primigravida and multigravida women in managing minor discomforts during pregnancy. Additionally, it explores the relationship between self-care behaviors and various demographic and reproductive factors.

Methods: A descriptive quantitative study was conducted using a non-probability sample of 350 pregnant women (127 primigravida and 223 multigravida) attending primary healthcare facilities in Karbala City. A structured questionnaire with 95 items was administered, covering socio-demographic characteristics, obstetric history, and self-care behaviors. Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 26.

Results: The findings indicate that most of the study sample consisted of housewives, nuclear family members, and individuals aged 20-39 years with bachelor's degrees. Overall, self-care behaviors were moderate, with significant correlations between self-care behavior and education level (p=0.001), occupation (p=0.002), and family type (p=0.004). Additionally, reproductive variables such as gravidity (p=0.001), number of abortions (p=0.002), parity (p=0.008), and duration of marriage (p=0.011) were significantly associated with self-care behaviors.

Conclusion: Pregnant women exhibit moderate self-care behaviors in managing minor discomforts. Significant differences were observed in self-care behaviors based on gravidity, with primigravida women demonstrating higher self-care scores in physiological discomfort management. Healthcare providers should enhance education and support to improve self-care practices during pregnancy.

What is already known about the topic?

- *Minor discomforts often accompany pregnancy*: Common discomforts during pregnancy include nausea, vomiting, back pain, fatigue, heartburn, leg cramps, and emotional fluctuations. While not typically dangerous, these symptoms can significantly impact the quality of life if not managed properly.

Introduction

Pregnancy is a transformative period in a woman's life that involves significant physiological, psychological, and social changes. These changes are largely driven by hormonal fluctuations, which prepare the body for pregnancy but may also lead to a variety of discomforts, commonly referred to as minor pregnancy-related ailments (Thatal et al., 2020). Despite the widespread occurrence of these discomforts, there remains a limited understanding of the factors influencing self-care behaviors, diet, and physical activity during pregnancy. Although pregnancy can be a motivating time for women to adopt healthier lifestyles, it can also present barriers to behavioral change (Eldousoky et al., 2023).

The physiological changes associated with pregnancy—such as alterations in hormone levels, expansion of the uterus, and shifts in metabolism—are responsible for many common discomforts. These can range from nausea, vomiting, heartburn, and constipation to musculoskeletal pain and fatigue (Medforth et al., 2019). While these discomforts are usually not life-threatening, they can significantly impact a woman's daily life and well-being. Fortunately, many of these conditions can be effectively managed through appropriate self-care behaviors, health education, and simple home remedies (Sowunmi et al., 2021).

In addition to physical challenges, pregnancy also affects psychological and emotional well-being. Anxiety, mood swings, and increased emotional sensitivity are common during this period (Kazemi et al., 2018). Pregnant women often experience stress due to lifestyle adjustments, physical discomforts, and concerns about childbirth and infant care. Therefore, self-care strategies addressing not only physical discomforts but also mental and emotional health are essential for a positive pregnancy experience (Aziz & Maqsood, 2016). The hormonal shifts, particularly those involving estrogen and progesterone, contribute significantly to these changes (Khalil, 2019).

A critical goal of pregnancy care is to ensure the birth of a healthy baby while maintaining the mother's overall well-being. Healthcare professionals, particularly nurses, play an essential role in providing accurate information and guidance to expectant mothers. Nurses can help pregnant women navigate minor discomforts by offering evidence-based recommendations on self-care practices (Nguyen et al., 2022). Dispelling myths,

promoting proactive self-care, and educating women about lifestyle modifications are crucial aspects of maternal care (Fatthy et al., 2021).

Self-care during pregnancy extends beyond physical health to include psychological and spiritual well-being. Women with high preconceptional Body Mass Index (BMI) are more likely to experience nausea and vomiting (Bagherzadeh et al., 2021). Minor pregnancy ailments such as morning sickness, constipation, back pain, and swelling can often be managed through simple self-care measures like dietary adjustments, hydration, exercise, and relaxation techniques (Hassan et al., 2020). According to the National Institute for Health and Care Excellence (NICE), 50-80% of pregnant women experience minor discomforts, reinforcing the importance of self-care strategies (Oluwatosin & Ike, 2017).

Nausea and vomiting in pregnancy (NVP), which typically occur in the first and early second trimesters, affect a significant proportion of women. While symptoms usually resolve within 16-20 weeks, severe cases, known as hyperemesis gravidarum, require medical intervention (Ayoub & Awed, 2018). Effective self-care strategies for managing NVP include dietary modifications, avoiding strong odors, and using alternative therapies. Other common pregnancy-related discomforts, such as back pain, constipation, and swelling, can also be alleviated through self-care measures like hydration, fiber intake, postural adjustments, and light exercise (Ahwinahwi et al., 2016; Khalil, 2019).

Beyond physical health, self-care plays a key role in psychological and spiritual well-being during pregnancy. Moderate exercise, deep breathing, meditation, and social support contribute to emotional stability and a positive pregnancy experience (Ayoub & Awed, 2018). Maternity nurses are instrumental in improving prenatal care by providing guidance on self-care strategies, offering psychosocial support, and promoting overall maternal health (Mendoza & Amsler, 2017).

The integration of telehealth services, such as telenursing, has further enhanced maternal healthcare by providing remote consultations, education, and support (Fatthy et al., 2021). Nurses play a pivotal role in reducing maternal morbidity and mortality by identifying potential risks and implementing timely interventions. Ongoing professional education and training are essential for nurses to provide comprehensive care to pregnant women experiencing minor discomforts (Abd Elaa et al., 2022).

Aim of the Study

The present study aims to assess the self-care behaviors of pregnant women in managing minor discomforts during pregnancy, focusing on physical, psychological, and spiritual aspects. It also seeks to examine the relationship between self-care behaviors and key demographic and reproductive characteristics among primigravida and multigravida women in Karbala City. By identifying gaps in self-care practices, this study aims to provide insights for healthcare providers to develop targeted interventions that enhance maternal health and well-being.

Methodology

Study Design

A descriptive cross-sectional study was conducted to assess self-care behaviors among pregnant women in managing minor discomforts during pregnancy. The study was carried out in five Primary Health Care Centers (PHCCs) in Holy Karbala City, Iraq: Al-Kawthar, Al-Nidal, Al-Ghadeer, Al-Nasir, and Hay Al-Muzafine. The study covered the period from September 2023 to August 2024, including data collection, analysis, and interpretation.

Study Population and Sampling

A non-probability convenient sampling technique was employed to select 350 pregnant women attending antenatal care or medical checkups at the five PHCCs. The sample selection was based on geographical representation, ensuring diversity within the population. Data collection occurred over a period of four months, from October 16, 2023, to February 24, 2024.

Inclusion Criteria

- Pregnant women attending antenatal clinics at the selected PHCCs.
- Women in any trimester of pregnancy.
- Willingness to participate and provide informed consent.

Exclusion Criteria

- Pregnant women with diagnosed high-risk complications.
- Women with pre-existing chronic medical conditions that could impact self-care behaviors.
- Those who refused to participate in the study.

Ethical Considerations

Ethical approval was obtained from the College of Nursing, University of Karbala. The study protocol and questionnaire were reviewed and approved by the College of Nursing's Ethics Committee. Written informed consent was obtained from all participants before their inclusion in the study. Privacy and confidentiality were strictly maintained throughout the research process.

Study Instrument

A structured questionnaire was designed based on a thorough review of the literature and the investigators' expertise (Torres Soto et al., 2021). The questionnaire was divided into three sections:

1. Socio-Demographic Characteristics: Includes participant details such as age, employment status, residence, and family type.
2. Obstetric Information: Covers reproductive history, including gravidity, history of abortion, number of births, gestational age, pregnancy follow-up, parity, and kinship relationships.
3. Self-Care Behaviors for Managing Minor Pregnancy Discomforts: Assesses self-care practices concerning physical, psychological, and spiritual aspects of pregnancy-related discomforts.

Validity and Reliability

To ensure content validity, the questionnaire was reviewed by a panel of 18 experts specializing in maternal health and nursing. Modifications were made based on expert feedback, ensuring the instrument's clarity and relevance.

The reliability of the self-care behaviors scale was tested using Cronbach's alpha coefficient, yielding a high reliability score of 0.851, indicating strong internal consistency and measurement stability. The reliability assessment was conducted between December 21 and December 28, 2023.

Data Analysis

Data were analyzed using SPSS (Statistical Package for Social Sciences) version 26. Descriptive statistics (mean, standard deviation, frequency, and percentage) were used to summarize the participants' characteristics and responses. Inferential statistics, including correlation and chi-square tests, were employed to determine associations

between self-care behaviors and demographic or obstetric variables. A p-value ≤ 0.05 was considered statistically significant.

Results

Results

The study included 350 pregnant women with an average age of 28 ± 6.6 years. The largest proportion of participants belonged to the 20–29 age group (46.9%), followed by 30–39 years (39.1%) (Table 1). Educational attainment varied among participants, with 18.9% holding a bachelor's degree, while 17.7% had only completed primary school. Regarding employment status, the majority of participants were housewives (56.6%), whereas 38.0% were employed. Most of the participants resided in urban areas (82.3%), and 59.4% reported living in a nuclear family structure.

In terms of reproductive health characteristics (Table 2), 63.7% of participants were multigravida, while 36.3% were experiencing their first pregnancy (primigravida). A history of one or more abortions was reported by 43.1% of participants, with 24.0% having had one abortion. Regarding parity, 32.3% of women had given birth to 2–3 children, while 25.7% had more than three children. The majority of the participants (94.9%) were in their third trimester at the time of data collection. All participants (100%) reported attending prenatal follow-ups, with 87.7% having their first follow-up visit during the first trimester. Furthermore, 58.6% of participants reported a kinship relationship with their spouse.

A significant difference was found in self-care behaviors between primigravida and multigravida women (Table 3). Primigravida women exhibited significantly better self-care behaviors overall (p = 0.048), particularly in managing physiological discomforts (p = 0.040). However, there were no significant differences in psychological (p = 0.277) and spiritual health (p = 0.440) self-care behaviors between the two groups. The assessment of self-care behavior domains revealed that 61.4% of participants demonstrated moderate self-care behaviors for psychological health, with a mean score of 56.12 ± 11.31, while 31.1% exhibited good self-care behaviors, and 7.5% reported poor self-care behaviors (Table 4). For spiritual health, 55.7% of women practiced moderate self-care behaviors, while 39.7% reported good self-care behaviors, and only 4.6% had poor self-care (Table 5). Regarding overall self-care behavior, 87.7% of women exhibited moderate self-care

behaviors for managing minor pregnancy discomforts, while 7.7% reported good self-care behaviors, and 4.6% had poor self-care practices (Table 6).

A statistically significant correlation was found between self-care behaviors and level of education (p = 0.001), occupation (p = 0.002), and family type (p = 0.004) (Table 7). Women with higher education levels demonstrated better self-care behaviors, while employed women showed significantly higher self-care scores than housewives. Additionally, women from nuclear families exhibited better self-care behaviors than those from extended families. However, no significant correlation was found between self-care behaviors and residency (p = 0.273) or age (p = 0.109). Furthermore, gravidity was highly correlated (p = 0.001) with self-care behaviors, with primigravida women demonstrating better self-care practices than multigravida women. A significant correlation was observed between self-care behaviors and abortion history (p = 0.002), parity (p = 0.008), and marriage duration (p = 0.011) (Table 8). Earlier prenatal follow-up visits (first trimester) were associated with better self-care behaviors (p = 0.050), whereas gestational age did not show a significant correlation with overall self-care behaviors (p = 0.134).

The correlation between self-care behavior domains and sociodemographic variables (Table 9) revealed that physiological health self-care was significantly associated with age (p = 0.037), education level (p = 0.001), occupation (p = 0.005), and family type (p = 0.005). Similarly, psychological health self-care was significantly correlated with education level (p = 0.026), occupation (p = 0.004), and family type (p = 0.018). However, spiritual health self-care showed no significant correlation with any sociodemographic variable. In terms of reproductive health variables (Table 10), physiological health self-care was significantly correlated with abortion history (p = 0.001), parity (p = 0.001), first follow-up visit (p = 0.016), and marriage duration (p = 0.004). Additionally, psychological health self-care was significantly associated with gestational age (p = 0.045), while spiritual health self-care was significantly correlated with the first follow-up visit timing (p = 0.039).

In summary, the study found that most participants (87.7%) exhibited moderate self-care behaviors, while only 7.7% demonstrated good self-care. Primigravida women exhibited better self-care behaviors than multigravida women, particularly in managing physiological discomforts. Education, employment, and family type significantly

influenced self-care behaviors, whereas residency and age showed no significant effects. Reproductive health factors such as gravidity, abortion history, parity, and early prenatal follow-ups were significantly associated with better self-care behaviors. The findings highlight the importance of education, employment, and reproductive history in influencing self-care behaviors among pregnant women. Healthcare providers should focus on enhancing prenatal education and self-care practices, particularly for multigravida women, to improve maternal health outcomes.

Table 1. The distribution of women based on their sociodemographic attributes

List	Characteristics		F	%
1	Age (year) M±SD= 28 ± 6.6	> 20	37	10.6
		20 – 29	164	46.9
		30 – 39	137	39.1
		40 ≤	12	3.4
		Total	*350*	*100*
2	Level of education	cannot write or read	35	10
		Read and write	39	11.1
		primary schooling	62	17.7
		Middle-school	39	11.1
		Secondary education	56	16
		Diploma	40	11.4
		Bachelor	66	18.9
		Postgraduate	13	3.7
		Total	*350*	*100*
3	Occupation	Housewife	198	56.6
		Employee	133	38
		Free work	19	5.4
		Total	*350*	*100*
4	Residency	Rural	62	17.7
		Urban	288	82.3
		Total	*350*	*100*
5	Family type	Nuclear	208	59.4
		Extended	107	30.6
		Largely extended	35	10
		Total	*350*	*100*

%: Percentage, f: Frequency, SD: Standard deviation and M: Mean

Table 2. Distribution of Women Based on Features of Reproductive Health

List	Characteristics		F	%
1	Gravidity	Primigravida	127	36.3
		Multigravida	223	63.7
		Total	*350*	*100*
2	Abortion	None	199	56.9
		Once	84	24
		Twice	46	13.1
		More than two	21	6
		Total	*350*	*100*
3	Parity	None	75	21.4
		1	72	20.6
		2 – 3	113	32.3
		More than 3	90	25.7
		Total	*350*	*100*
4	Gestational age	First semester	17	4.8
		Second semester	1	.3
		Third semester	332	94.9
		Total	*350*	*100*
5	Current pregnancy follow-up	No	0	0
		Yes	350	100
		Total	*350*	*100*
6	First follow-up	First semester	307	87.7
		Second semester	30	8.6
		Third semester	13	3.7
		Total	*350*	*100*
7	Lived children	None	69	19.7
		1 – 3	222	63.4
		4 – 6	55	15.7
		$7 \leq$	4	1.1
		Total	*350*	*100*
8	Lived birth	None	84	24
		1 – 3	209	59.7
		4 – 6	53	15.1
		$7 \leq$	4	1.1
		Total	*350*	*100*
9	Dead birth	None	280	80
		1 – 3	68	19.4
		$4 \leq$	2	.6
		Total	*350*	*100*
10	Duration of marriage	1 – 5 years	186	53.1
		6 – 10 years	81	23.1
		11 – 15 year	35	10
	M±SD= 7 ± 6	$16 \text{ year} \leq$	48	13.7
		Total	*350*	*100*
11	Kinship degree with husband	Yes	205	58.6
		No	145	41.4
		Total	*350*	*100*

%: Percentage, f: Frequency, M: Mean and SD: Standard deviation

Table 3. Considerable Variation in Self-Care Practices according to Gravity (N=350)

Gravidity Behavior		M	SD	T	df	p≤ 0.05	Sig
Physiological discomfort	Primigravida	207.18	28.583	1.817	348	.040	S
	multigravida	201.39	28.753				
Psychological health	Primigravida	56.99	11.926	1.089	348	.277	N.S
	multigravida	55.62	10.945				
Spiritual health	Primigravida	32.61	5.783	.773	348	.440	N.S
	multigravida	31.61	5.782				
Overall self-care behavior	Primigravida	296.28	38.841	1.767	348	.048	S
	multigravida	288.61	39.110				

df: Degree of freedom, M: Mean, t: t-test, SD: Standard deviation, Sig: Significance,

p: Probability value, N.S: Not significant, S: Significant and H.S: High significant

Table 4: Assessment of Self-Care Behavior Concerning Psychological Health during Pregnancy among Women

Self-care behavior	f	%	M	SD	Ass.
Poor	26	7.5			
Moderate	215	61.4	56.12	11.313	Moderate
Good	109	31.1			
Total	350	100			

SD: Standard Deviation for total score, f: Frequency, %: Percentage, M: Mean for total score, ,
Ass: Assessment, Poor= 17 – 39.66, Moderate= 39.67 – 62.33, Good= 62.34 – 85

Figure 1: Self-Care Behavior for Psychological Health among Women (N=350)

Table 5: Assessment of Self-Care Behavior Concerning Spiritual Health during Pregnancy among Women

Self-care behavior	f	%	M	SD	Ass.
Poor	16	4.6			
Moderate	195	55.7	31.79	5.779	Moderate
Good	139	39.7			
Total	*350*	*100*			

SD: Standard Deviation for total score, M: Mean for total score, f: Frequency, %: Percentage , Ass: Assessment, Poor= 9 – 21, Moderate= 21.1 – 33, Good= 33.1 – 45

Figure 2: Self-Care Behavior for Spiritual Health among Women (N=350)

Table 6: Overall Assessment of Self-Care Behavior about Management of Minor Discomforts during Pregnancy among Women

Self-care behavior	f	%	M	SD	Ass.
Poor	16	4.6	291.39	39.131	Moderate
Moderate	307	87.7			
Good	27	7.7			
Total	*350*	*100*			

SD: Standard Deviation for total score, f: Frequency, %: Percentage, M: Mean for total score, , Ass: Assessment, Poor= 95 – 221.66, Moderate= 221.67 – 348.33, Good= 348.34 – 475

Figure 3: Overall Self-Care Behavior among Women (N=350)

Table 7. Relationship among Overall Self-Care Behaviors among Women and their Sociodemographic Variables (N=350)

Variables	Self-care behaviors				Association
	Poor	Moderate	Good	Total	

		Poor	Moderate	Good	Total	Association
Age (year)	> 20	2	32	3	37	$r^s = .086$
	20 – 29	7	138	19	164	
	30 – 39	5	127	5	137	P-value= .109
	40 ≤	2	10	0	12	
	Total	16	307	27	350	Sig= N.S
Level of education	Doesn't read & write	5	27	3	35	
	Read & write	0	37	2	39	
	Primary school	5	55	2	62	$r^s = .220$
	Intermediate school	1	37	1	39	P-value= .001
	Secondary school	3	49	4	56	
	Diploma	1	34	5	40	Sig= H.S
	Bachelor	1	57	8	66	
	Postgraduate	0	11	2	13	
	Total	16	307	27	350	
Occupation	Housewife	12	177	9	198	$r^s = .162$
	Employee	4	114	15	133	
	Free work	0	16	3	19	P-value= .002
	Total	16	307	27	350	Sig= H.S
Residency	Rural	8	45	9	62	$r^* = 059$
	Urban	8	262	18	288	
						P-value= .273
	Total	16	307	27	350	
						Sig= N.S
Family type	Nuclear	3	188	17	208	$r^s = .153$
	Extended	9	89	9	107	
	Largely extended	4	30	1	35	P-value= .004
	Total	16	307	27	350	
						Sig= H.S

N.S: Not Significant, S: Significant, H.S: High Significant, r^s: Spearman Correlation coefficient,

r^*: Biserial correlation coefficient, P: Probability and Sig: Significance

Table 8. Relationship among Overall Self-Care Behaviors among Women and their Reproductive Health Variables (N=350)

Variables		**Self-care behaviors**				**Association**
		Poor	Moderate	Good	Total	

Gravidity	Primigravida	4	108	15	127	r^*= .447
	Multigravida	12	199	12	223	
	Total	16	307	27	350	P-value= .001
						Sig= H.S
Abortion	None	5	176	18	199	r^s = .164
	Once	5	70	9	84	
	Twice	4	42	0	46	P-value= .002
	More than two	2	19	0	21	
	Total	16	307	27	350	Sig= H.S
Parity	None	0	65	10	75	r^s = .142
	1	3	66	3	72	
	2 – 3	9	95	9	113	P-value= .008
	More than 3	4	81	5	90	
	Total	16	307	27	350	Sig= S
Gestational age	First semester	1	14	2	17	r^s = .080
	Second semester	0	1	0	1	
	Third semester	15	292	25	332	P-value= .134
	Total	16	307	27	350	Sig= N.S
First follow-up	First semester	14	266	27	307	r^s = .130
	Second semester	1	29	0	30	
	Third semester	1	12	0	13	P-value= .050
	Total	16	307	27	350	Sig= S
Duration of marriage	1 – 5 years	3	163	20	186	r^s = .135
	6 – 10 years	7	70	4	81	
	11 – 15 year	4	30	1	35	P-value= .011
	16 year ≤	2	44	2	48	
	Total	16	307	27	350	Sig= S

N.S: Not Significant, S: Significant, H.S: High Significant, r^s: Spearman Correlation coefficient,

r^*: Biserial correlation coefficient, P: Probability and Sig: Significance

Table 9. Relationship among Self-Care Behaviors Domains among Women and their Socio-demographic Variables (N=350)

		Self-Care Behaviors		
Variables		Physiological health	Psychological health	Spiritual health
Age	Correlation	.112*	.009	.004
	Sig.	.037	.865	.941
	Correlation	.237**	.119*	.053

Level of education	Sig.	.001	.026	.324
Occupation	Correlation	.151**	.154**	.001
	Sig.	.005	.004	.991
Residency	Correlation	.060	.045	.018
	Sig.	.260	.399	.744
Family type	Correlation	.149**	.127*	.062
	Sig.	.005	.018	.350

* Correlation is significant at the 0.05 level (2-tailed) ,

** Correlation is significant at the 0.01 level (2-tailed)

Table 10. Relationship among Self-Care Behaviors Domains among Women and their Reproductive Health Variables (N=350)

Variables		Self-Care Behaviors		
		Physiological health	Psychological health	Spiritual health
Gravidity	Correlation	.094	.049	.040
	Sig.	.081	.363	.458
Abortion	Correlation	.183**	.088	.031
	Sig.	.001	.100	.563
Parity	Correlation	.174**	.049	.050
	Sig.	.001	.361	.354
Gestational age	Correlation	.052	.107*	.012
	Sig.	.328	.045	.826
First time follow up	Correlation	.129*	.038	.110*
	Sig.	.016	.483	.039
Marriage duration	Correlation	.155**	.025	.079
	Sig.	.004	.643	.140

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

Discussion

Self-Care Behavior for Managing Physiological Minor Discomforts During Pregnancy

The findings of this study indicate that the majority of pregnant women (81.1%) exhibited moderate self-care behaviors in managing physiological minor discomforts (M±SD = 203.49 ± 28.786) (Table 3). The researcher attributes this moderate self-care level to several factors, including a moderate level of education, a high number of children, and a lack of cultural awareness regarding pregnancy planning, early marriage, and effective self-care strategies. Many women tend to seek medical intervention at the first sign of discomfort rather than exploring non-medical strategies to alleviate pregnancy-related discomforts.

The results of this study contrast with the findings of Ayoub & Awed (2018), who reported that 56% of participants had little knowledge of common pregnancy discomforts. However, they align with the research conducted by Kaur & Singh (2018), which found that 73% of expectant mothers had average knowledge about self-managing minor ailments during pregnancy, while 16% had below-average knowledge and only 6% had good knowledge. Similarly, Alageswari and Dash (2019) found that while 38% of mothers had inadequate knowledge of minor illnesses, 62% had somewhat adequate knowledge. These results are also comparable to Karnati & Vanaja (2015), who examined minor discomforts and self-care behaviors among pregnant women in Andhra Pradesh, India, reporting that 40% had poor knowledge, 33.3% had average knowledge, and only 26.67% had good knowledge.

In contrast, Aldossary et al. (2018) found that 59% of mothers possessed good knowledge, 32% excellent knowledge, and only 2% poor knowledge. The findings of the current study also diverge from Aziz & Maqsood (2016), who concluded that pregnant women had fair knowledge but poor self-management practices. Furthermore, Samantha et al. (2020) reported that 26.32% of primigravida women had good knowledge and 48.59% had excellent knowledge regarding minor pregnancy discomforts.

Self-Care Behavior for Psychological Health During Pregnancy

Regarding psychological health, the study results indicate that 61.4% of pregnant women practiced moderate self-care behaviors, while 31.1% exhibited good self-care practices (M±SD = 56.12 ± 11.313) (Table 4). The overall mean score was moderate, except for specific psychological self-care items, such as worrying about pregnancy, recognizing emotional well-being, and trying to maintain a good mood, which scored higher.

These findings differ from those of Kazemi et al. (2016), who found that expectant mothers had insufficient knowledge about adopting a healthy lifestyle and identified time constraints and healthcare system limitations as major barriers to health behaviors. Similarly, Umar & Adel (2019) found that pregnant women exhibited poor sleep habits, inadequate relaxation techniques, and poor medication adherence.

On the other hand, Nurhasanah et al. (2020) reported that the mean self-care behavior score among pregnant women was 156.5 (SD = 16.91), which is considered moderate. Path analysis revealed that knowledge, self-efficacy, and social support had both direct and indirect effects on self-care behaviors, which aligns with the findings of the current study. However, Nguyen et al. (2022) reported that social support played a critical role in improving psychological well-being, with 13.5% of the direct effect and 11.9% of the overall effect attributed to the mediating role of social support in reducing risky behaviors among pregnant women.

These results are also consistent with the findings of Kim & Dee (2017), who found that approximately 43% of pregnant women were at risk for postpartum depression (PPD) and that self-care ability, spirituality, and social support were strongly correlated with psychological well-being. In rural Hispanic women at risk for PPD, social support significantly predicted self-care ability in areas such as nutrition, psychological well-being, exercise, and responsible health practices.

Self-Care Behavior for Spiritual Health During Pregnancy

The study findings show that 55.7% of pregnant women practiced moderate self-care behaviors regarding spiritual health, while 39.7% demonstrated good self-care behaviors (M±SD = 31.79 ± 5.779) (Table 5). Items related to meditation, inner peace, and spiritual satisfaction scored the highest.

These results align with the research conducted by Nurhasanah et al. (2020), which highlighted the direct and indirect effects of knowledge, self-efficacy, and social support in empowering self-care behaviors toward pregnancy-related complications. Similarly, Kim & Dee (2017) found that spirituality and social support were strongly correlated among women at risk for PPD. In rural Hispanic women, social support was a significant predictor of self-care ability for "Nutrition," "Psychological Well-being," "Exercise," and "Responsible Health Practices."

The findings of this study emphasize the importance of social support, spirituality, and religious beliefs in pregnancy. This aligns with the study by Rabiepoor et al. (2019), which found that pregnant women who scored highest on spiritual health (25.86 ± 4.7) perceived pregnancy as a profoundly transformative experience, increasing their sense of spirituality. Additionally, first-time mothers exhibited higher spiritual health and physical activity levels than multigravida women, as reported by Lin et al. (2009), suggesting that primigravida women are generally more motivated to adopt lifestyle changes that improve their health.

Conclusions

The findings of this study indicate that pregnant women generally exhibit moderate self-care behaviors in managing minor discomforts. The overall self-care practices were significantly influenced by education level, occupation, and family type, demonstrating that higher education and employment positively impact self-care behaviors. Additionally, gravidity, number of abortions, parity, first follow-up visit timing, and duration of marriage were strongly correlated with self-care behaviors.

The overall assessment of self-care behaviors regarding management of minor discomforts, physiological health, and psychological well-being indicated moderate levels of self-care. A significant difference was observed in self-care behaviors based on gravidity, particularly in the management of physiological minor discomforts, with primigravida women demonstrating better self-care practices.

Furthermore, the study revealed a strong correlation between overall self-care behaviors and educational attainment, occupation, and family type. Additionally, significant relationships were observed between self-care behaviors and reproductive health variables, including gravidity, number of abortions, parity, first follow-up visit, and marriage duration. These findings highlight the need for enhanced prenatal education and self-care interventions, particularly for multigravida women, to promote better maternal health outcomes.

Healthcare providers should focus on empowering pregnant women through health education programs, promoting early prenatal follow-ups, and encouraging self-care practices that address physical, psychological, and spiritual well-being. Implementing community-based interventions and enhancing social support networks may further contribute to improving self-care behaviors among pregnant women, ultimately leading to better pregnancy experiences and outcomes.

DECLARATION SECTION

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