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Self-Care Management of Pregnant Women with Pregnancy-Induced Hypertension at Tertiary-Level Hospitals in Dhaka

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ABSTRACT

Background: Pregnancy-induced hypertension (PIH) is an important pregnancy complication associated with adverse maternal and perinatal outcomes. Appropriate self-care may support disease management and timely recognition of complications. However, limited evidence is available on self-care management among women with PIH in Bangladesh.

Purpose: To assess self-care management among pregnant women with PIH attending tertiary-level hospitals in Dhaka, Bangladesh.

Methods: A descriptive cross-sectional study was conducted among 112 pregnant women with PIH at two tertiary-level hospitals in Dhaka from January to December 2023. Participants were selected by convenience sampling. Data were collected using a structured interviewer-administered questionnaire, including a 25-item Pregnancy-Induced Hypertension-Related Self-Care Management Questionnaire. The questionnaire demonstrated acceptable internal consistency (Cronbach's α=.79). Descriptive and inferential statistics were used for analysis.

Results: The mean age was 26.54 ± 6.51 years. The overall mean self-care management score was 2.79 ± 0.40. The highest-rated practice was avoiding heavy weights (4.79 ± 0.41), while the lowest-rated practices included drinking water as prescribed by a physician (1.22 ± 0.81), lifting the legs after prolonged standing (1.45 ± 0.68), and walking in fresh air (1.53 ± 0.85). Self-care management was significantly associated with educational level (p = .007), occupation (p = .017), monthly family income (p < .001), and number of antenatal visits (p < .001).

Conclusion: Self-care management scores varied across individual practices, with gaps in several recommended behaviors. Individualized antenatal counseling and nursing support should emphasize blood pressure monitoring, healthy lifestyle practices, recognition of warning signs, and timely healthcare seeking.

Keywords : Antenatal Care; Nursing Care; Pregnancy-induced hypertension; Pregnant Women; Self-Care Management

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BACKGROUND

Pregnancy-induced hypertension (PIH) is an important complication of pregnancy and a major contributor to maternal and perinatal morbidity and mortality. In contemporary obstetric practice, hypertensive disorders of pregnancy include chronic hypertension, gestational hypertension, preeclampsia, eclampsia, and chronic hypertension with superimposed preeclampsia (Magee et al., 2022). For the purpose of this study, PIH refers to new-onset hypertension developing after 20 weeks of gestation in a previously normotensive pregnant woman. Gestational hypertension is characterized by new-onset blood pressure of ≥140/90 mmHg after 20 weeks of gestation without features of preeclampsia, whereas preeclampsia is characterized by new-onset hypertension with proteinuria and/or maternal organ dysfunction (Espinoza et al., 2020; Magee et al., 2022). Severe hypertension is generally defined by a systolic blood pressure of ≥160 mmHg and/or a diastolic blood pressure of ≥110 mmHg (Magee et al., 2022). Hypertensive disorders of pregnancy remain a major global public health concern, accounting for approximately 16% of maternal deaths worldwide in 2023, with preeclampsia affecting approximately 3–8% of women who give birth (World Health Organization [WHO], 2025).

The burden of PIH is also relevant in Bangladesh. Previous studies conducted among pregnant women in Bangladesh have reported the occurrence of PIH and preeclampsia and identified various maternal and pregnancy-related factors associated with these conditions (Ahmed et al., 2017; Hasan et al., 2021; Mou et al., 2021). A hospital-based study in Bangladesh also examined women's knowledge, awareness, treatment, and prevention related to PIH, highlighting the importance of women's participation in the management of pregnancy-related hypertension (Zohora et al., 2022). Hypertension during pregnancy may result in serious maternal and perinatal complications, including progression to preeclampsia and eclampsia, placental abruption, stroke, renal and hepatic complications, preterm birth, fetal growth restriction, stillbirth, and neonatal morbidity (Espinoza et al., 2020; Magee et al., 2022). Evidence from a tertiary teaching hospital in Dhaka has also demonstrated adverse perinatal findings among women with PIH (Susan et al., 2016), emphasizing the need for appropriate monitoring and management.

Self-care management is an important component of the care of pregnant women with PIH. It includes behaviors undertaken by women to maintain their health and manage their condition, such as adherence to prescribed medication, attendance at scheduled antenatal and follow-up visits, monitoring blood pressure when advised, following appropriate dietary recommendations, maintaining recommended activity and rest, monitoring fetal well-being as instructed, recognizing danger signs, and seeking timely healthcare when symptoms or abnormal findings occur. Appropriate self-care can complement professional clinical management by supporting adherence, early recognition of deterioration, and timely healthcare-seeking (Magee et al., 2022; WHO, 2025). Previous studies have examined self-care management among women with PIH or preeclampsia.

Previous studies have examined self-care management among women with pregnancy-induced hypertension (PIH), including assessments of existing practices and evaluations of educational interventions. Hussian and Al-Saffar (2016) assessed self-care management among

pregnant women with PIH, while Elbana et al. (2022) examined the utilization of a self-care management program. Intervention studies have also reported improvements in self-care following educational approaches (Afefy & Kamel, 2019; El Sayed et al., 2020). However, the Bangladesh studies cited here have primarily examined occurrence, associated factors, clinical outcomes, and knowledge or awareness related to PIH (Ahmed et al., 2017; Hasan et al., 2021; Mou et al., 2021; Zohora et al., 2022). The cited literature provides limited information about specific self-care practices among women with PIH attending tertiary-level hospitals in Bangladesh and how reported practices vary across participant characteristics. This study addresses that local evidence gap by describing self-reported self-care practices among women with PIH attending two tertiary-level hospitals in Dhaka and examining their unadjusted associations with selected sociodemographic and pregnancy-related characteristics. Given the cross-sectional design and convenience sampling, the findings describe this sample and do not establish causal relationships or population-wide estimates. The aim of the study was to assess the self-care management of pregnant women with pregnancy-induced hypertension at tertiary-level hospitals in Dhaka.

METHODS

Design and Setting

A descriptive cross-sectional study was conducted among pregnant women with pregnancy-induced hypertension (PIH) at the Obstetrics and Gynecology outpatient departments of Dhaka Medical College Hospital and Shaheed Suhrawardy Medical College Hospital. These hospitals were selected because they provide tertiary-level obstetric services and had high outpatient attendance and access to the target population during the study period. Convenience sampling was therefore used to recruit eligible pregnant women with PIH from these settings. An a priori power analysis was conducted for a two-tailed correlation test because the study examined the relationship between self-care management and continuous participant characteristics. Assuming a moderate effect size of 0.30, 80% power, and $\alpha = .05$, the minimum required sample size was 85. Allowing for approximately 20% potential non-response, the target sample size was 106. During the data-collection period, 112 eligible pregnant women with pregnancy-induced hypertension were recruited for the analysis.

Participants and Sampling

Eligible participants were pregnant women with a diagnosis of pregnancy-induced hypertension (PIH) documented in their clinical records by the attending healthcare provider. Blood pressure values were recorded in mmHg and systolic and diastolic values were classified separately using the thresholds described for hypertensive disorders of pregnancy (Magee et al., 2022): systolic hypertension, 140–159 mmHg; severe systolic hypertension, ≥160 mmHg; diastolic hypertension, 90–109 mmHg; and severe diastolic hypertension, ≥110 mmHg. The documented clinical diagnosis was used to determine eligibility, while the recorded blood pressure values were used to describe participants' blood pressure categories. Women who were clinically ill or unable to respond to the interview were excluded.

Instruments and Data Collection

Data were collected using a structured interviewer-administered questionnaire comprising two parts: (I) a 16-item Socio-Demographic and Pregnancy-Related Characteristics

Questionnaire and (II) a 25-item Pregnancy-Induced Hypertension-Related Self-Care Management Questionnaire (PIHRSMQ). The PIHRSMQ was developed from relevant literature and adapted from previous studies of self-care among women with PIH and preeclampsia (Afefy & Kamel, 2019; El Sayed et al., 2020; Elbana et al., 2022; Hussian & Al-Saffar, 2016). The items were reviewed for relevance and clarity by five nursing experts and translated into Bangla using forward- and back-translation followed by expert review. Items were rated on a five-point Likert scale from 1 = never to 5 = always. The possible raw total score was 25–125; the mean item score was calculated by dividing the total by 25, giving a range of 1–5, with higher scores indicating more frequent self-reported practices. No validated or prespecified cutoffs were available to classify scores as low, moderate, or high, so scores were interpreted descriptively. A pilot study involving 10 similar participants assessed clarity and feasibility; these participants were excluded from the final sample. Internal consistency was acceptable (Cronbach's $\alpha = .79$), but this value alone does not establish construct or criterion validity.

Content validity was assessed by five nursing experts with relevant specialties, and the questionnaire was translated into Bangla using forward and back-translation procedures followed by expert review. A pilot study among 10 similar participants was conducted to assess clarity and feasibility; these participants were excluded from the final sample. The PIHRSMQ demonstrated acceptable internal consistency (Cronbach's $\alpha = .79$).

Data were collected by the principal investigator through face-to-face interviews from 8:00 AM to 2:00 PM on working days, with each interview requiring approximately 15–20 minutes. Written informed consent was obtained from all participants. Ethical approval was obtained from the Institutional Review Board of the National Institute of Advanced Nursing Education and Research (NIANER), and administrative permission was obtained from the respective hospitals. Confidentiality, anonymity, and voluntary participation were maintained throughout the study.

Ethical Considerations

Ethical approval was obtained from the Institutional Review Board (IRB) of the National Institute of Advanced Nursing Education and Research (NIANER), Mugda, Dhaka (IRB No. Exp.NIA-S-2022/218) prior to commencement of the study.

Data Analysis

Data were analyzed using IBM SPSS Statistics version 25.0. Frequencies and percentages were used for categorical variables, and means and standard deviations for continuous variables. Independent-samples t tests and one-way analysis of variance (ANOVA) were used to compare mean self-care management scores between groups, while Pearson's correlation coefficient (r) was used to assess relationships between continuous variables. Statistical assumptions were assessed before inferential analyses. A two-tailed p value of $< .05$ was considered statistically significant.

RESULTS

Socio-Demographic and Pregnancy Related Characteristics of the Participants

Table 1 shows that participants had a mean age of 26.54 ± 6.51 years, ranging from 17 to 40 years, and a mean gestational age of 30.44 ± 2.20 weeks. Most participants were Muslim

(93.8%), had primary education (47.3%), were housewives (95.5%), and lived in rural areas (62.5%). More than half were overweight (58.9%), and 57.1% were multigravida. A total of 98 participants (87.5%) reported 1–4 antenatal visits and 14 (12.5%) reported more than four visits. These visit counts are presented descriptively because adequacy depends on gestational age and the applicable antenatal-care schedule. Regarding blood pressure, 90.2% were in the 140–159 mmHg systolic category and 52.7% were in the ≥110 mmHg diastolic category. A previous history of PIH was reported by 20.5%, while 19.6% had a history of stillbirth or miscarriage.

Table 1. Socio-Demographic and Pregnancy-Related Characteristics of the Participants (n = 112)

Variable	Category	n	%	M ± SD
Age (years)				**26.54 ± 6.51**
Min–Max: 17–40 years				
Religion	Muslim	105	93.8	
	Hindu	7	6.3	
Educational level	No formal education	15	13.4	
	Primary education	53	47.3	
	SSC and above	44	39.3	
Occupation	Housewife	107	95.5	
	Employee	5	4.5	
Monthly family income (taka)	Min–Max: 7,000–50,000 taka			19,437.50 ± 9,045.21
Residence	Rural	70	62.5	
	Urban	42	37.5	
BMI	Normal	35	31.3	
	Overweight	66	58.9	
	Obese	11	9.8	
Gravida	Primi gravida	48	42.9	
	Multi gravida	64	57.1	
Para	No child	53	47.3	
	1 child	27	24.1	
	Two/more	32	28.6	
Gestational age (weeks)				30.44 ± 2.20
Previous history of pregnancy-induced hypertension	Yes	23	20.5	
	No	89	79.5	
Number of antenatal visits	Visit numbers (1–4)	98	87.5	
	Visit numbers (>4)	14	12.5	
Current systolic blood pressure	Hypertension (140–159 mmHg)	101	90.2	
	Severe hypertension (≥160 mmHg)	11	9.8	
Current diastolic blood pressure	Hypertension (90–109 mmHg)	53	47.3	
	Severe hypertension (≥110 mmHg)	59	52.7	
Family history of pregnancy-induced hypertension	Yes	19	17.0	
	No	93	83.0	
History of previous stillbirth or miscarriage	Yes	22	19.6	
	No	90	80.4	
Pregnancy type	Single	104	92.9	
	Twin	8	7.1	

Self-Care Management of the Participants

Table 2 shows that the mean self-care management score was 2.79 on a five-point scale. Based on the response frequencies, the highest mean score was observed for avoiding heavy weights (4.79 ± 0.41), followed by eating fresh vegetables and fruits (3.92 ± 0.82) and staying away from crowded places (3.92 ± 0.83). Lower reported frequencies were observed for drinking water as prescribed by a physician (1.22 ± 0.81), lifting the legs after prolonged standing (1.45 ± 0.68), and walking in fresh air (1.53 ± 0.86). The clinical appropriateness of these behaviors depends on each participant's condition and the advice or care plan provided.

Table 2. Distribution of Self-Care Management of the Participants (n = 112)

No.	Items	Never n (%)	Rarely n (%)	Sometimes n (%)	Most of the time n (%)	Always n (%)	M ± SD
1	I avoid adding extra salt in my food.	54 (48.2)	8 (7.1)	8 (7.1)	8 (7.1)	34 (30.4)	2.64 ± 1.78
2	I avoid eating fast food.	11 (9.8)	19 (17.0)	36 (32.1)	24 (21.4)	22 (19.6)	3.24 ± 1.23
3	I avoid fatty food (ice-cream, butter, cheese).	5 (4.5)	11 (9.8)	49 (43.8)	31 (27.7)	16 (14.3)	3.38 ± 0.99
4	I eat less sugar in food.	29 (25.9)	8 (7.1)	53 (47.3)	10 (8.9)	12 (10.7)	2.71 ± 1.24
5	I eat fish and chicken.	0 (0)	0 (0)	51 (45.5)	59 (52.7)	2 (1.8)	3.56 ± 0.53
6	I avoid eating red meat (beef and mutton).	12 (10.7)	10 (8.9)	45 (40.2)	32 (28.6)	13 (11.6)	3.21 ± 1.11
7	I eat fresh vegetables and fruits.	0 (0)	2 (1.8)	36 (32.1)	43 (38.4)	31 (27.7)	3.92 ± 0.81
8	I avoid drinking tea and coffee.	41 (36.6)	11 (9.8)	28 (25.0)	15 (13.4)	17 (15.2)	2.61 ± 1.47
9	I eat nuts and raisins.	25 (22.3)	77 (68.8)	10 (8.9)	0 (0)	0 (0)	1.87 ± 0.54
10	I avoid soft drinks.	11 (9.8)	12 (10.7)	30 (26.8)	23 (20.5)	36 (32.1)	3.54 ± 1.30
11	I drink water as prescribed by my physician.	103 (92.0)	2 (1.8)	0 (0)	5 (4.5)	2 (1.8)	1.22 ± 0.81
12	I perform regular exercise such as walking.	58 (51.8)	18 (16.1)	30 (26.8)	2 (1.8)	4 (3.6)	1.89 ± 1.08
13	I take a period of relaxation when I feel tired.	4 (3.6)	8 (7.1)	71 (63.4)	25 (22.3)	4 (3.6)	3.15 ± 0.75
14	I take enough sleep per day (7 hours or more).	0 (0)	0 (0)	80 (71.4)	30 (26.8)	2 (1.8)	3.30 ± 0.49
15	I stay away from stressful work.	26 (23.2)	10 (8.9)	42 (37.5)	26 (23.2)	8 (7.1)	2.82 ± 1.23
16	I avoid heavy weights.	0 (0)	0 (0)	0 (0)	24 (21.4)	88 (78.6)	4.79 ± 0.41

No.	Items	Never n (%)	Rarely n (%)	Sometimes n (%)	Most of the time n (%)	Always n (%)	M ± SD
17	I lift my leg to the top when lying down or sitting after standing for a long time.	73 (65.2)	29 (25.9)	9 (8.0)	1 (0.9)	0 (0)	1.45 ± 0.68
18	I check my blood pressure regularly.	31 (27.7)	52 (46.4)	24 (21.4)	2 (1.8)	3 (2.7)	2.05 ± 0.89
19	I measure my blood sugar level.	41 (36.6)	61 (54.5)	6 (5.4)	2 (1.8)	2 (1.8)	1.78 ± 0.77
20	I feel fetal movement.	4 (3.6)	5 (4.5)	27 (24.1)	71 (63.4)	5 (4.5)	3.61 ± 0.79
21	I walk in fresh air.	75 (67.0)	19 (17.0)	15 (13.4)	2 (1.8)	1 (0.9)	1.53 ± 0.85
22	I stay away from crowded places.	4 (3.6)	1 (0.9)	16 (14.3)	70 (62.5)	21 (18.8)	3.92 ± 0.82
23	I measure my body weight regularly.	46 (41.1)	48 (42.9)	14 (12.5)	2 (1.8)	2 (1.8)	1.80 ± 0.85
24	I take medicine as prescribed by a doctor.	35 (31.3)	5 (4.5)	25 (22.3)	28 (25.0)	19 (17.0)	2.92 ± 1.49
25	I consult with a doctor if any problem arises.	36 (32.1)	6 (5.4)	26 (23.2)	26 (23.2)	18 (16.1)	2.86 ± 1.48
	Total mean of self-care management						**2.79 ± 0.40**

Socio-Demographic and Pregnancy-Related Characteristics and Self-Care Management of the Participants

Table 3 shows that **educational level, occupation, monthly income, and number of antenatal visits were significantly associated with self-care management** (***p*** < .05). Participants with SSC and above had the highest self-care management score (2.92 ± 0.43), while those with no formal education had the lowest (2.58 ± 0.20; ***p*** = .007). Employees had a higher mean score than housewives (3.06 ± 0.55 vs. 2.77 ± 0.38; ***p*** = .017). Participants with adequate antenatal visits (>4) had substantially higher self-care management scores than those with 1–4 visits (3.23 ± 0.28 vs. 2.73 ± 0.37; ***p*** < .001). **Age, religion, residence, BMI, gravida, para, gestational age, previous history of PIH, family history of PIH, previous stillbirth or miscarriage, and pregnancy type were not significantly associated with self-care management** (***p*** > .05).

Table 3. Relationship between Socio-Demographic and Pregnancy-Related Characteristics and Self-Care Management of the Participants (n = 112)

Variables	Category	M ± SD	r / t / F	*p*
Age (years)	—	—	0.07	0.424
Religion	Muslim	2.79 ± 0.39	0.59	0.550
	Hindu	2.70 ± 0.45		
Educational level	No formal education[a]	2.58 ± 0.20	5.26	0.007
	Primary education[b]	2.74 ± 0.38		
	SSC and above[c]	2.92 ± 0.43		c > b > a

Variables	Category	M ± SD	r / t / F	*p*
Occupation	Housewife	2.77 ± 0.38	2.43	0.017
	Employee	3.06 ± 0.55		
Monthly income	—	—	0.44	< .001
Residence	Rural	2.76 ± 0.36	0.88	0.379
	Urban	2.83 ± 0.46		
BMI	Normal	2.72 ± 0.40	0.90	0.408
	Overweight	2.82 ± 0.36		
	Obese	2.85 ± 0.59		
Gravida	Primigravida	2.85 ± 0.43	1.33	0.186
	Multigravida	2.75 ± 0.37		
Para	No child	2.81 ± 0.44	0.62	0.536
	1 child	2.83 ± 0.36		
	>1 child	2.72 ± 0.36		
Gestational age	—	—	0.14	.130
Previous history of PIH	Yes	2.80 ± 0.38	0.11	.900
	No	2.78 ± 0.40		
Number of ANV	Visit numbers (1–4)	2.73 ± 0.37	4.77	< .001
	Visit numbers (>4)	3.23 ± 0.28		
Family history of PIH	Yes	2.87 ± 0.42	.93	.350
	No	2.78 ± 0.39		
History of previous stillbirth or miscarriage				
	Yes	2.70 ± 0.39	1.14	.250
	No	2.81 ± 0.40		
Pregnancy type	Single	2.78 ± 0.41	-0.75	.440
	Twin	2.89 ± 0.25		

Note. M = mean; SD = standard deviation; PIH = pregnancy-induced hypertension; ANV = antenatal visit; r = Pearson's correlation coefficient; t = independent-samples t-test; F = one-way analysis of variance (ANOVA). Superscripts [a–c] indicate post-hoc pairwise comparisons, with significant differences observed in the order c > b > a. All analyses were unadjusted. Results involving employed participants (n = 5) should be interpreted cautiously. Statistical significance was set at $p < .05$.

DISCUSSION

This study assessed the self-care management of 112 pregnant women with pregnancy-induced hypertension (PIH) attending tertiary-level hospitals in Dhaka. The findings are discussed in relation to socio-demographic and pregnancy-related characteristics, self-care management, and factors associated with self-care management.

Socio-Demographic and Pregnancy-Related Characteristics

The mean age of the participants was 26.54 years (SD = 6.51), ranging from 17 to 40 years, which was comparable with a previous study reporting an age range of 17–43 years among pregnant women with PIH (Ahmed et al., 2017). The majority of participants were Muslim, consistent with findings reported by (Haque & Sarkar, 2020). Regarding education, 47.3% had

completed primary education, 39.3% had secondary or higher education, and 13.4% had no formal education. Previous research has identified education as an important factor associated with self-care among women with pregnancy-related hypertension (Hussian & Al-Saffar, 2016; Salim & Kuriakose, 2017).

Nearly 95% of participants were housewives, which was consistent with previous findings among pregnant women (Singh et al., 2021). The mean monthly family income was BDT 19,437.50 (SD = 9,045.21), ranging from BDT 7,000 to 50,000. The present study found a significant positive relationship between family income and self-care management, suggesting that socioeconomic circumstances may influence access to healthcare information and resources. Similar findings have been reported in previous research (Buda et al., 2017).

More than half of the participants lived in rural areas; however, residence was not significantly associated with self-care management. This finding is consistent with Salim and Kuriakose (2017), who reported no significant association between residence and knowledge related to self-care among women with gestational hypertension. Approximately 59% of participants were overweight and 10% were obese. Previous studies have identified higher maternal weight as a risk factor for pregnancy-related hypertension (Ahmed et al., 2017; Hussian & Al-Saffar, 2016), although BMI was not significantly associated with self-care management in the present study.

Most participants were multigravida and also had no previous history of PIH. Similar findings were reported by Afefy and Kamel (2019) and Elbana et al. (2022). Most participants also had no family history of PIH or previous stillbirth. These characteristics provide important background information but were not significantly associated with self-care management.

Self-Care Management

The overall mean self-care management score was 2.79 (SD = 0.40) on a five-point scale. This finding was consistent with Hussian and AL-Saffar (2016), who also reported the self-care management among pregnant women with PIH. The findings indicate that although participants practiced some recommended behaviors, important gaps remained in several areas of self-care.

Dietary practices varied considerably. Many participants reported inconsistent practices regarding salt, fast food, fatty foods, red meat, fruits, and vegetables. Previous studies have identified dietary patterns as relevant to hypertensive disorders during pregnancy (Nahla et al., 2022). These findings highlight the need for culturally appropriate dietary counseling for women with PIH. Physical activity was limited, as more than half of the participants reported never exercising. Sleep and stress-management practices were also inconsistent. Previous research has suggested relationships between physical activity, sleep, stress, and pregnancy-related hypertension (Ojukwu et al., 2021). Therefore, self-care education should address appropriate physical activity, adequate rest, and stress management according to individual clinical conditions.

Blood pressure monitoring was another important area of concern. Approximately half of the participants reported rarely checking their blood pressure, while only a small proportion reported always checking it. Regular blood pressure monitoring is important for early recognition of worsening hypertension and timely healthcare seeking (Afefy & Kamel, 2019; Elbana et al., 2022). Maternal weight monitoring and consultation with healthcare professionals when

problems arose were also reported relatively infrequently. These findings identify potential areas for further assessment and patient education.

Relationship Between Socio-Demographic Characteristics and Self-Care Management

Self-care management scores differed significantly by educational level, occupation, monthly family income, and antenatal care attendance. Participants with secondary or higher education had higher mean self-care scores than those with lower educational attainment, consistent with previous research (Salim & Kuriakose, 2017). Employed participants also had higher mean scores than housewives, a finding that may reflect differences in access to information and resources (Berhe et al., 2020). However, only five participants were employed, limiting the reliability of this occupational comparison.

Monthly family income was positively correlated with self-care management, suggesting that socioeconomic circumstances may influence the ability to practice recommended self-care (Buda et al., 2017). Antenatal care attendance was also significantly associated with self-care management. Women with more antenatal visits demonstrated better self-care management, supporting previous evidence that regular antenatal care provides opportunities for health education, monitoring, and early identification of complications (Berhe et al., 2020).

In contrast, residence and gravidity were not significantly associated with self-care management. Similar findings regarding residence were reported by Salim and Kuriakose (2017). Overall, the findings indicate a moderate level of self-care management and highlight education, socioeconomic circumstances, occupation, and antenatal care attendance as important characteristics associated with self-care among pregnant women with PIH. These findings support the need for individualized nursing education focusing on blood pressure monitoring, healthy lifestyle practices, recognition of warning signs, and timely healthcare seeking.

Limitations

This study has several limitations. First, convenience sampling at two tertiary-level hospitals in Dhaka may have introduced selection bias and limits the generalizability of the findings to pregnant women with PIH in other healthcare settings. Second, data were collected through interviewer-administered self-report, which may have been affected by recall errors and social-desirability bias. Third, the small employed subgroup of five participants limits the precision and reliability of occupation-related comparisons. Finally, the cross-sectional design does not establish causal relationships, and the unadjusted analyses cannot adequately account for potential confounding among education, occupation, family income, and antenatal visits. These limitations should be considered when interpreting the findings and planning future research.

CONCLUSION

This study described self-reported self-care management among pregnant women with pregnancy-induced hypertension attending two tertiary-level hospitals in Dhaka. Educational level, occupation, monthly family income, and number of antenatal visits were associated with self-care scores in unadjusted analyses; these findings should be interpreted cautiously because of possible confounding and the small employed subgroup. Individualized antenatal counseling

should address clinically appropriate self-care, recognition of warning signs, and timely healthcare seeking.

RECOMMENDATIONS

Individualized self-care education should be strengthened during antenatal care, with support tailored to the woman's clinical condition, educational needs, and attendance pattern. Nurses should emphasize clinically appropriate blood pressure monitoring, medication adherence, diet, physical activity and rest, recognition of warning signs, and timely healthcare seeking. Future studies should use larger samples, probability-based sampling, and multiple healthcare settings. Intervention studies are also recommended to evaluate structured nursing education and self-care programs for women with PIH.

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CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

DECLARATION OF AI USE

QuillBot was used solely for language editing and improving the clarity and grammar of the manuscript. The authors reviewed and approved the final content and take responsibility for the accuracy and integrity of the work.

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