

Diabetes Self-awareness and Self-care Practices among Indonesian Diabetics: A Cross-Sectional Study

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ABSTRACT

Background: Self-awareness plays an important role in successful diabetes self-care practices. However, some DM patients in Indonesia reported low self-awareness, which results in poor glycemic control and accelerates the occurrence of DM complications, which in turn leads to an increased mortality rate due to Diabetes Mellitus (DM) complications. **Objectives:** This study aimed to examine the levels of diabetes self-awareness and diabetes self-care practices as well as their correlation among Indonesian diabetics. **Methods:** This study employed a cross-sectional design. The samples involved 134 patients with type 2 DM from the community health center in South Jakarta, Indonesia, selected using a convenience sampling technique. The diabetes self-awareness and the summary of diabetes self-care practices questionnaires were used for data collection. The *t*-test, analysis of variance (ANOVA), Pearson correlation, and multiple linear regression were used to analyze the data. **Results:** A total of 134 patients completed the face-to-face survey. The mean score of diabetes self-awareness was 11.03 (SD=2.74), and the diabetes self-care practices were 78.60 (SD=12.55) in total. The result of diabetes self-care practices dimensions was 34.61 (SD=8.01) for DM diet, 11.74 (SD=3.12) for physical activity, 5.53 (SD=1.74) for blood glucose monitoring, 5.48 (SD=1.79) for medication, and 21.25 (SD=6.56) for foot care. Furthermore, the analysis revealed that DM duration and DSA have a statistically significant correlation on diabetes self-care practices, with coefficient $\beta = -0.372$ ($p < 0.001$) and 0.400 ($p < 0.001$), respectively. **Conclusion:** The study found a significant correlated between duration of diabetes, diabetes self-awareness, and diabetes self-care practices in Indonesian diabetics. These findings suggest that DM patients are experiencing quite good self-awareness and self-care practices, especially in DM diet, followed by foot care, physical activity, medication, and blood glucose monitoring.

Keywords: Diabetes; Glycemic Control; Self-Awareness; Self-Care Practices

INTRODUCTION

Diabetes Mellitus (DM) is a non-communicable disease with a high prevalence worldwide, including in Indonesia. Currently, Indonesia is ranked 1st in Southeast Asia with a DM prevalence of 20.4 million patients in 2024, which is predicted to increase to 28.6 million patients in 2050. This condition is worsened by the fact that there are 15 million cases of diabetes that have not been diagnosed by doctors. This data places Indonesia as the country with the 3rd highest number of undiagnosed diabetes cases after India and the United States (International Diabetes Federation, 2025). A study reported that the higher the prevalence of diabetes, the higher the prevalence of diabetes complications (Hidayat *et al.*, 2022).

The Indonesian Society for Endocrinology suggested that performing of self-care practices can delay DM complications. Furthermore, to survive the complex nature of diabetes in a social setting, self-care techniques are essential for DM patients as part of an evolutionary process of knowledge or awareness development (Puzhakkal *et al.*, 2025). Self-care practices include a healthy diet, regular physical activities, taking medicines as prescribed, monitoring blood glucose, quitting smoking, getting structured education, and stress management (Soelistijo *et al.*, 2024). Unfortunately, some Indonesian diabetics are still found to have poor self-care practices (Wahyuni *et al.*, 2026), self-awareness (Sari *et al.*, 2022), low motivation (Alfaqeeh *et al.*, 2024; Wahyuni *et al.*, 2026), and inadequate knowledge (Sukarno *et al.*, 2024). This study integrates the Social Cognitive Theory, proposed by Bandura (1992). It suggests that self-care practices are driven by the reciprocal,

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dynamic interaction of personal (cognitive, emotional, and awareness) components and environmental behavior. Self-awareness boosts self-care practice and outcome expectations.

In theory, self-awareness has a crucial role in improving self-care practices by involving neuroplasticity in the brain. The mechanisms of neuroplasticity and self-care practices are not explained directly. However, neuroplasticity enables the brain to create new neural connections that can improve self-awareness. This connection emphasizes how crucial neuroplasticity is to both emotional intelligence development and personal growth to make decisions regarding self-care practices. Furthermore, those that are highly self-awareness typically have significant neuroplasticity, which will produce motivation from inside to change behaviors (Marzola *et al.*, 2023). When individuals have adequate internal motivation, the behavioral changes that they make are truly driven by their own needs rather than a desire to receive rewards or praise from others, ultimately leading to a positive impact on improving good self-care (Askenasy & Lehmann, 2013; Zeine *et al.*, 2024).

In addition, self-awareness also has a positive impact on implementing self-care practices because diabetic patients who have good self-awareness about their health tend to be more motivated to follow the treatment plan (Tamiru *et al.*, 2023). They have realized that being healthy has become a necessity, even though they live as a diabetic patient. They also understand that if they continue to dwell on their illness, it is not a solution but rather a burden that accelerates the occurrence of DM complications (Hisni & Nurani, 2025). Self-awareness also improves the importance of support from the environment and motivates positive behavior change in patients with DM (Ahmad & Joshi, 2023). However, no previous studies in Indonesia have quantitatively examined the relationship between self-awareness and self-care practices. Most of them were focused on the self-efficacy among DM patients. Meanwhile, self-awareness and self-efficacy are very different things. Self-efficacy is related to a person's desire to change their behavior, while self-awareness is a basic need that a person must have to develop self-efficacy (Carden *et al.*, 2022). Furthermore, education levels, age, duration of diabetes, and economic disparities can also affect the level of awareness and ability of patients to engage in diabetes self-care practices. Hence, the purpose of this study is to assess the prevalence of self-awareness and diabetes self-care practices, and examine the correlation between demographic information, self-awareness, and self-care practices among Indonesian diabetics. Assessing both self-awareness and self-care practices is important for developing nursing intervention to reduce the DM complications and making policy to assist in reducing cost of treating DM.

METHODOLOGY

Design

This is a cross-sectional study following the Strengthening the Reporting of Observational in Epidemiology (STROBE) guidelines (Benchimol & Langan, 2025).

Setting

This study was conducted at the Public Health Centre in South Jakarta, Indonesia, from May and June 2025.

Participants

The sample was decided using the G* Power software version 3.1.9 (Faul *et al.*, 2007) with a statistical significance 0.05 and an effect size of 0.3 to achieve a power of 0.90. A sample size of 112 participants was required. To reduce the probability of Type II error, the sample size was increased to 20%. Thus, a total of 134 participants was needed. The inclusion criteria of the study were patients who have no physical limitations and understand Indonesian, both in reading and writing. A lack of willingness to participate in the study was excluded.

The participants were recruited through convenience sampling in South Jakarta City, Indonesia. The researchers collaborated with public health centers of South Jakarta to distribute participant recruitment materials at the public health and community. Before completing the survey, the participants experienced a face-to-face interview with a trained Research Assistant (RA) to ensure eligibility and to avoid the selection bias of the respondents. Before conducting the survey, all the RAs were trained in the aims, content of study, and

survey methods. The face-to-face interviews conducted was about 45 minutes, and the participants who completed all the surveys received a valuable gift in return.

Data Collection

This study was conducted between May and June 2025. The procedures of the study began sequentially. Firstly, the research team called the selected heads of public health centers face-to-face to ask them to participate and to acquire their agreement. After approval by each public health center, the researchers continued to meet nurses who worked at the DM unit in the public health center to obtain potential participants. The goal of the study, the confidentiality of all participants data, and the fact that only researchers would have access to the data were all verbally conveyed to all participants by the researchers. Each participant was asked for permission to introduce the study. Furthermore, the participants who were eligible for the study were examined.

Collecting data consisted of three-part questionnaires, they were (1) Demographic Data Information (DDI); (2) the Summary of Diabetes Self-care Activities (SDSCA); (3) and the Diabetes Self-Awareness (DSA). The DDI was developed by researchers comprised of six items: age, gender, educational level, income, duration of DM, and DM complications. The SDSCA was designed to examine the practices of diabetes self-care. It has 14 items that measure self-care practices during the past 7 days which consisted of 5 dimensions: DM diet (items number 1 to 6), physical activity (items number 7 to 8), blood glucose monitoring (item number 9), medication compliance (item number 10), and foot care (items number 11 to 14). The score of the SDSCA was between 0 and 98. The higher score indicated that participants performed better diabetes self-care practice. The SDSCA used in this study was based on the Indonesian version with a Cronbach's alpha of 0.83 (*Sugiharto et al.*, 2018). The DSA was used to measure the self-awareness in patient with DM regarding the practices of DM management (*Rahman et al.*, 2014). It comprises fourteen questions. A scoring method was carried out by marking correct answer as “aware” and incorrect as “unaware”. The total score ranges from 0 to 14. The high score of DSA showed better self-awareness in DM patients. Because the Indonesian version of the DSA is still limited, the researchers created categories by setting a cut-off point for the DSA. The cut-off point was determined based on the median value of the DSA score range of 0-14. The median of this score range was 7. Thus, a total DSA score in the range of 0-6 indicated that a DM patient has a low DSA, while a DSA score in the range of 7-14 indicated that a DM patient has a good DSA. In this study, the DSA was back translated into an Indonesian version. The validity of the DSA in the Indonesian version was accepted by two experts from the Faculty of Liberal Arts at Universitas Nasional to examine the sentences and grammar. The Content Validity Index (CVI) of DSA was 0.81 and the internal consistency reliability of DSA was 0.85. This result was reliable (*Polit & Beck*, 2014).

Data Analysis

Data analysis was done sequentially, which comprised of entering, recording, cross-checking, and analyzing using SPSS version 29. Descriptive statistics were performed to examine the DDI. Prior to determining the appropriate statistical test, the normality and assumption tests were met. The researchers used Pearson correlation test to examine the correlation between diabetes self-awareness and self-care practices among Indonesian diabetics and multiple linear regression to investigate the significant factors correlated to diabetes self-care practices.

Ethical Consideration

Ethical clearance was obtained from the Institutional Review Board of the Faculty of Health Sciences, Universitas Nasional, Indonesia, with approval number 039/e-KEPK/FIKES/IV/2025, on 26th April 2025.

The present study was conducted in accordance with the Declaration of Helsinki. The information procedure and the principle of respect for autonomy, anonymity, confidentiality, and privacy of the participants were practiced. The participants were also made aware of their freedom to decline participation in the study at any moment without incurring any fee.

RESULTS

Demographic Data Information

Table 1 presents a total of 134 patients with type 2 DM completed this study. More than half of the participants were female (54.5%), with most of the sample having finished junior high school (35.8%), followed by senior high school (28.4%), elementary school (18.7%), and a bachelor or a diploma degree (17.2%). In terms of income, around half of the participants were more than minimum wage (60.4%). The minimum wage was 5,067,381 IDR. The majority of participants have DM complications, either macrovascular or microvascular. The mean age of the respondents was 46.9 years old ($SD = 2.3$), with the minimum age being 42 years old and the maximum being 52 years old. Regarding the DM duration, the finding showed the mean duration of DM was 2.9 years ($SD = 1.2$), the minimum duration was 1 year, and the maximum was 5 years.

Table 1: Demographic and Clinical Characteristics of the Participants (n=134)

Variable	Category	n (%)
Gender	Male	61 (45.5)
	Female	73 (54.5)
Education	Elementary School	25 (18.7)
	Junior High School	48 (35.8)
	Senior High School	38 (28.4)
	Bachelor/Diploma	23 (17.2)
Monthly Income	$\geq$ Minimum Wage	81 (60.4)
	$<$ Minimum Wage	53 (39.6)
DM Complications	Yes	68 (50.7)
	No	66 (49.3)
Continuous Variables		
Variable	Mean $\pm$ SD	Range
Age (years)	46.9 $\pm$ 2.3	42–52
Duration of DM (years)	2.9 $\pm$ 1.2	1–5

M = Mean; SD = standard deviation

Table 2 shows the mean score and standard deviation of the diabetes self-awareness were 11.03 ($SD = 2.74$) and the global mean score of the diabetes self-care practices was 78.60 ($SD = 12.55$). It can be reported that the mean score of each dimension of diabetes self-care practices such as DM diet was 34.61 ($SD = 8.01$), physical activity was 11.74 ($SD = 3.12$), monitoring blood glucose was 5.53 ($SD = 1.74$), medication was 5.48 ($SD = 1.79$), and foot care was 21.25 ($SD = 6.56$).

Table 2: Descriptive Statistics of Diabetes Self-Awareness and Self-Care Practices (n=134)

Variables	Mean (SD)	Min-max (years)
Diabetes self-awareness	11.03 (2.74)	4–14
Diabetes self-care Practices Total	78.60 (12.55)	50–98
DM Diet	34.61 (8.01)	6–42
Physical Activity	11.74 (3.12)	0–14
Blood Glucose Monitoring	5.53 (1.74)	1–7
Medication Compliance	5.48 (1.79)	0–9
Foot Care	21.25 (6.56)	0–28

M = Mean; SD = standard deviation

Normality test

Prior to determining the statistical tests appropriately, the normality tests were carried out. To determine if the data was normally distributed, the researchers examined the p-value from the Kolmogorov-Smirnov test. Data is considered normally distributed if it has $p > 0.05$. The results of the normality test in this study revealed that both diabetes self-awareness and diabetes self-care practice variables had $p > 0.05$. Therefore, both variables were normally distributed.

Bivariate analysis to select the candidate variables for multivariate multiple regression test

Bivariate analysis is conducted to determine which variables can be included in the multiple linear

regression test. Variables with a $p < 0.25$ can be included in the multiple linear regression test. The independent t -test and one-way ANOVA were performed if the independent variables had categorical scale. Meanwhile, the correlation test was performed if the independent variables had a numerical scale. Table 2 shows the bivariate analysis for categorical variables, while numerical variables are explained in table 3.

Table 3 reported that gender, education levels, income per month, and DM complications have $p < 0.25$, Therefore, these variables will be included in the multiple regression test to determine the predicator factors of the diabetes self-practices.

Table 3: The Association between Gender, Education Levels, Income Per Month, DM Complications and Diabetes Self-care Practice (134)

Variables	Diabetes Self-Care Practices		
	Mean (SD)	t/ F	p
Gender		-1.470	0.144*
Male	76.87 (13.86)		
Female	80.05 (11.22)		
Education Levels		5.386	0.002**
Elementary School	73.04 (13.02)		
Junior High School	80.21 (12.20)		
Senior High School	83.29 (7.32)		
Bachelor or Diploma Degree	73.57 (15.92)		
Income Per Month		-2.200	0.030*
≥ Minimum Wage	75.70 (13.12)		
< Minimum Wage	80.51 (11.85)		
DM Complications		-5.173	<0.001
Yes	73.36 (13.98)		
No	83.69 (8.34)		

*Independent t-test; **One-way ANNOVA

Education level, income per month, and DM complications were statistically significant at $p < 0.05$. Gender was not significant

Table 4 reported that age, DM duration and diabetes self-awareness have $p < 0.25$, Therefore, these variables will be included in the multiple regression test. Furthermore, table 3 showed that there was a medium direct correlation between DM duration and diabetes self-awareness with diabetes self-care practices ($r=-0.40$; $p < 0.001$); ($r=0.47$; $p < 0.001$), respectively. However, there was no correlation between age and diabetes self-practices among Indonesian diabetics ($r=-0.16$; $p=0.056$).

Table 4: Correlation between Age, DM Duration, Diabetes Self-Awareness and Self-Care Diabetes Activities

Variables	Diabetes self-care activities	
	r	p
Age	-0.16	0.056*
DM Duration	-0.40	<0.001*
Diabetes Self-awareness	0.47	<0.001*

*Pearson correlation test

DM duration and diabetes self-awareness showed significant correlations with diabetes self-care practices at $p < 0.05$. Age was not significant

Correlation between demographic information and diabetes self-awareness with diabetes self-care practices among Indonesian diabetics

Table 5 presented the model summary of multiple linear regression. The regression model showed that SDA and DM duration have $\beta = -0.372$ ($p < 0.001$) and $\beta = 0.400$ ($p < 0.001$), respectively, significantly associated with self-care practices. DSA emerged to have the most significant association with self-care practices. The

model explained that 36.2% of the variance in self-care practices was affected by these factors. This means that factors could predict 36.2% of the variation in self-care practices. Other factors explained the remaining 63.8%.

Table 5: Model Summary of Multiple Linear Regression

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate	Change Statistics				
					R-Square Change	F Change	df1	df2	Sig. F Change
1	0.602	0.362	0.332	10.255	0.362	12.028	6	127	0.001
Model	Unstandardized Coefficients		Standardized Coefficients β	<i>t</i>	<i>p</i>	95% Confidence Interval for B			
	B	Std. error				Lower Bound		Upper Bound	
(Constant)	61.815	19.801		3.122	0.002	22.631		100.998	
Age	0.106	0.415	0.019	0.255	0.799	-0.716		0.928	
Gender	1.215	1.844	0.048	0.659	0.511	-2.435		4.864	
Education	-2.159	1.458	-0.169	-1.481	0.141	-5.045		0.727	
Income	3.935	2.828	0.154	1.391	0.167	-1.662		9.531	
DM Duration	-3.810	0.814	-0.372	-4.681	<0.001	-5.420		-2.199	
DSA	1.829	0.340	0.400	5.380	<0.001	1.156		2.501	

The regression model was significant. DM duration and diabetes self-awareness were significant predictors, while age, gender, education, and income were not significant

DISCUSSION

There are limited studies explain about the correlation between self-awareness and diabetes self-care practices in Indonesia. Most of them were explained about self-efficacy and self-care practices. The aims of the study were to assess the prevalence of self-awareness and diabetes self-care practices, and to examine the correlation between demographic information, self-awareness, and diabetes self-care practices in patients with type 2 DM in Indonesia.

According to the results, there were no significant difference of diabetes self-care practices between males and females. However, females had a higher score of diabetes self-care practice than males. It was corroborated by another study, women typically exhibit higher meal plan adherence and healthier lifestyle choices including abstaining from alcohol and smoking, whereas men reported better medication compliance and healthier eating. Even though women may encounter greater obstacles and have poorer glycemic control, both sexes require specialized assistance for improved overall results. Men struggle with professional flexibility and revealing the disease, while women may overlook their requirements owing to caregiving responsibilities but also demonstrate a higher integration of self-care into their lives (Ramírez-Morros *et al.*, 2024; Wahyuni *et al.*, 2026).

On the other hand, the results of the study showed that there were significant differences between education levels, income per month, and DM complications with diabetes self-care practices among Indonesian diabetics. These results were similar to a previous study reported that education improves knowledge, self-efficacy, and understanding of self-care practices, leading to improved compliance and glycemic control (Nadatién *et al.*, 2024). In this study, although the number of respondents with a diploma was smaller than that of high school graduates, both groups fall under the category of higher education. Some Indonesian diabetics were under minimum wage because half of them were retired. However, they are able to practice self-care well because they have attended regular education sessions organized by the community health center and realize that they are no longer young, so they need to limit their diet to achieve normal blood sugar levels. This activity has a positive impact, as evidenced by the fact that most respondents delayed to have DM complications.

There was a significant correlation between DM duration, diabetes self-awareness, and diabetes self-care practices. Participants who have a longer DM correlated with worse diabetes self-care practices. Patients who have been diagnosed with diabetes for a long time tend to feel bored and tired with their daily self-care practices, especially those over 50 years old, as they sometimes need assistance with daily activities. Therefore, family members are needed as a support system to accompany and help in performing self-care practices. However, a higher score of self-awareness leads to better performance of diabetes self-care practices. Self-awareness is a crucial factor to achieve successful self-care of diabetes (Abbasi *et al.*, 2022; Sukma *et al.*, 2023). Self-awareness

becomes the basic capital of DM patients to carry out self-care practices because it can enhance internal motivation to perform activities not only to external factors such as pressure and reward but also through be self-awareness and enjoying the activities carried out (Sunny *et al.*, 2025). In this study, the diabetes self-awareness of respondents was 11.03 (range from 4 to 14). It reflects that they had quite good self-awareness. This may be influenced by the Indonesian con-communicable diseases program called Prolanis. It is a series of programs for patients with chronic conditions such as diabetes and hypertension. It consists of several activities, including monthly educational sessions, health checkups, regular exercise classes, counselling on psychological issues faced by patients, and, on occasion, group prayer sessions to raise awareness of the importance of managing blood sugar levels so that complications from diabetes can be prevented early on. This can foster the respondents' self-awareness to sincerely accept being a diabetes patient, which in turn affects diabetes self-care practices.

According to the multiple regression results, DSA accounts for 40% of the variance in self-care practices among Indonesian diabetics. Parallel to the result of this study, literature stated that one of the factors associated with self-care practices was self-awareness (Ahmad & Joshi, 2023). The basis of diabetes patients' self-care practices is self-awareness. Without it, daily self-care duties become mechanical rather than intentional, which results in poor health outcomes. It helps patients identify and overcome behavioural impediments (Martínez *et al.*, 2021; Yari *et al.*, 2023). Meanwhile, similar studies conducted in Indonesia have not yet measured self-awareness as a determinant of the success of self-care practices among patients with diabetes (Sukarno *et al.*, 2024). In addition to the Prolanis program, which contributes to increased self-awareness. In this study, increased DSA is likely influenced by certain religious activities and the patients' high level of self-acceptance, even though the researchers did not measure these factors directly. However, most of participants explained that when they engaged in religious activities such as group religious study sessions, reciting prayers, fasting, and regularly worshipping God, they felt a deep sense of peace that led to an attitude of surrender to God regarding their current health conditions. This attitude of surrender fostered a sense of acceptance toward their diabetes and enhanced their DSA to continue maintaining a healthy lifestyle.

The relationship between DSA and self-care practices among diabetes patients needs to explored especially in Indonesia. Previous studies focused on psychological problems, knowledge, and clinical outcomes (Sekardiani *et al.*, 2023; Sukarno *et al.*, 2024; Susanto *et al.*, 2025). Meanwhile, patient self-awareness is basic foundation to self-care practices and to recognize stress or emotional factors that might impact their ability to adhere to treatment plans, leading to better strategies for emotional regulation and seeking support (Qudrat-Ullah, 2025). Thus, self-awareness enhances one's ability to engage in effective diabetes self-care by fostering a deeper understanding of the condition, improving monitoring practices, encouraging behavior changes, managing emotional aspects, setting realistic goals, and building confidence in one's management abilities (Elsehrawy *et al.*, 2026; Jyoti Jyotsana *et al.*, 2024).

The multiple regression also presented that DM duration and diabetes self-awareness significantly correlated with the diabetes self-care practices. The findings of this study were supported by some previous studies reported that longer duration of diabetes potentially decreasing experience and risks of burnout or complications (Wibowo *et al.*, 2025; Zhang *et al.*, 2026). As explained previously, patients who have had diabetes for a longer duration tend to experience fatigue in performing self-care practices. Therefore, a patient-centered care intervention is needed to reduce this feeling of fatigue so that patients are motivated to carry out self-care practices. One form of patient-centered care intervention is coaching, which can raise an individual's self-awareness to permanently change behaviors. Self-awareness plays a crucial role in managing diabetes effectively (Sukma *et al.*, 2023).

The mean score for diabetes self-awareness in this study was close to the maximum score. It shows that current Indonesian government programs, like the chronic disease management program (Prolanis), have worked to raise diabetes patients' awareness of how important it is to take care of themselves. Additionally, the integrated health promotion posts (posbindu) program, conducted by public health center workers, has also contributed to raising awareness among diabetes patients in Indonesia. Like the Indonesian government program, the Diabetes Lifestyle Program (DLP) launched by the Ministry of Health, Malaysia, also has a positive impact on diabetes patients to increase their awareness and enhance self-care practices. In order to enhance treatment outcomes and lessen the impact of diabetes on patients, families, and the healthcare system, DLP focuses on encouraging people with diabetes in Malaysia to adopt better habits (Dom *et al.*, 2025).

Limitations

The limitation of the study was that it was conducted at the public health center in South Jakarta. Thus, it cannot be generalized to other provinces, which have unique characteristics. Future study should involve a huge sample from some provinces in Indonesia to cover the representative of the population. Diabetes self-care practice was measured by using the SDSCA, whereas there are other instruments to measure diabetes self-care practice. Future study should use other instruments to get another result of the study. Another limitation is regarding the included other variables such as clinical characteristics, BMI, diabetes medication, support system, health literacy and psychological issues should be measured to ensure the exact predictors of the self-care practices among diabetes patients. Lastly, neuroplasticity should be measured and confirmed whether it correlates to self-awareness of diabetes even though both are strongly correlated theoretically.

Future Scope

This study sheds important light on Indonesian diabetics' self-awareness and self-care practices. There are still several prospects for further study, though. To determine the causal linkages between awareness levels and health outcomes, longitudinal studies are first required to look at changes in self-awareness and self-care practices across time. Second, to improve the generalizability of results and capture regional differences in diabetes patients' self-care practices, future research should involve a wider range of populations from various Indonesian regions, including rural and remote places. Furthermore, a qualitative study could be carried out to investigate the social, cultural, economic, and psychological aspects that impact self-care practices. Examining the obstacles to successful self-care diabetes practices, such as health literacy, financial constraints, family, and access to healthcare services, could help develop more focused interventions. In the end, data from upcoming research can help create culturally relevant diabetes education programs and public policies targeted at improving self-care practices, lowering complications from diabetes, and raising the standard of living for Indonesians with the disease.

CONCLUSION

The study proves significant correlation between DM duration, diabetes self-awareness and diabetes self-care practices among Indonesian diabetics. The results of the study provide new insights for nursing practice to develop applicable nursing intervention models to increase self-awareness among DM patient in Indonesia. Therefore, the prevalence of DM and its complications will decrease. Additionally, further research in the field of nursing is needed to identify self-awareness in a larger population with DM, as Indonesia consists of several provinces and islands. These can affect the self-awareness of different DM patients. In addition, future studies could also be done on hospital populations with DM, which may differ from community populations.

CRedit Authorship Contribution Statement

R.L: Writing-original draft, formal analysis, investigation and editing. D.H: Review, supervision, methodology and data curation.

AI Assistance Declaration

No AI tools were used in the preparation of this manuscript.

Conflict of Interest

There was no conflict of interest that might influence the results or interpretation.

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