

#### 4.1.2. Participants' associated comorbidities

The current study demonstrated that one or more comorbid conditions affected 64% of the patients; hypertension and cardiac conditions were the most common. The study results concluded that hypertension is the most common comorbidity among diabetic patients at 55%. Interestingly, 5% of participants suffered from hepatitis C virus as shown in table (4.2)

**Table (4.2): Distribution of the studied diabetic patients according to participants' associated comorbidities (n = 100) (El-Horraya polyclinic, 2023).**

Variable	Total (n =100)	Intervention (n =50)	Nonintervention (n =50)	p- value
Having at least one disease	64 (64%)	32 (64%)	32 (64%)	1.000
Hypertension	55 (55%)	26 (52%)	29 (58%)	0.419
Renal diseases	1 (1%)	0 (0%)	1 (2%)	1.000
Hepatic diseases	1 (1%)	0 (0%)	1 (2%)	1.000
Endocrine diseases	3 (3%)	1 (2%)	2 (4%)	1.000
Heart diseases	12 (12%)	7 (14%)	5 (10%)	0.758
Asthma	1 (1%)	1 (2%)	0 (0%)	1.000
Cholecystitis	1 (1%)	1 (2%)	0 (0%)	1.000
HCV	5 (5%)	2 (4%)	3 (6%)	1.000

#### **4.1.3. Descriptive data about diabetes, diabetes treatment characteristics, and medical history.**

The findings regarding diabetes history, diabetes treatment characteristics, and insulin use are explained in Table 4.3. The majority of the patients (67%) had diabetes for longer than 10 years while 22% had used insulin for the same period.

From the data in Figures 4.2 and 4.3, it is apparent that there was no significant difference between the intervention and nonintervention groups regarding the duration of diabetes and insulin use respectively.

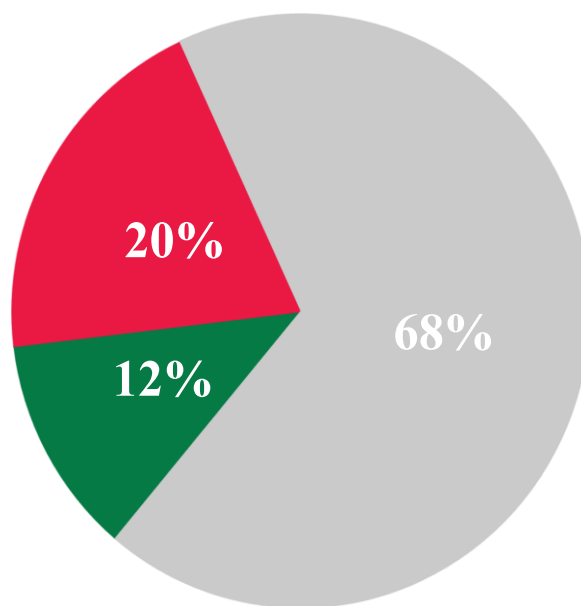
The current study showed that the majority of participants used insulin pens (58%). The median number of syringes discarded each month per patient among syringe users was 10, whereas that of the disposed pen needles among pen users was 8.

As indicated in the Table 4.3, there were no significant differences in any of the medical traits between the intervention and nonintervention groups. The duration of diabetes in both groups was nearly the same, about two thirds of the participants (68%) in the intervention group and 66% in the nonintervention one had diabetes for more than ten years. Likewise, figure (4.3) shows that the proportions of respondents regarding the duration of insulin use were similar and the group who used insulin from five to ten years represented the major proportion in the intervention and nonintervention groups at 40% and 42% respectively.

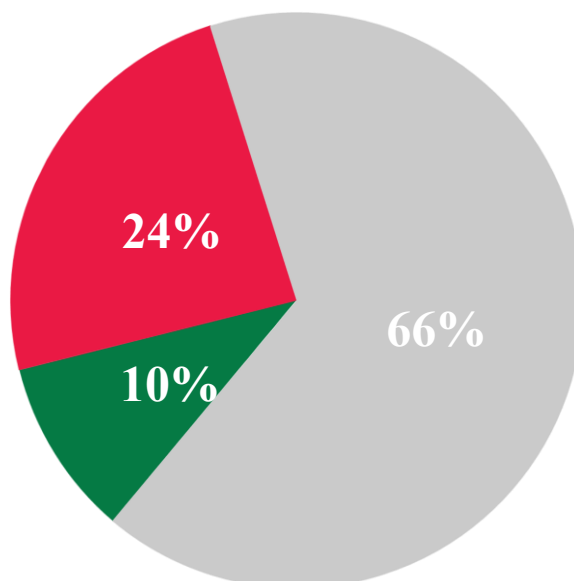
**Table (4.3): Distribution of the studied diabetic patients according to history of diabetes and diabetes treatment characteristics (n =100) (El-Horraya polyclinic, 2023).**

<b>Variable</b>	<b>Total (N =100)</b>	<b>Intervention (n =50)</b>	<b>Nonintervention (n =50)</b>	<b>P</b>
<b>Diabetes duration in years, Median (IQR)</b>	15 (10- 20)	16 (10-20)	14 (9-20)	.774
<b>Diabetes duration categories</b>				
Less than 5 years	11 (11%)	6 (12%)	5 (10%)	.866
5 to 10 years	22 (22%)	10 (20%)	12 (24%)	
More than 10 years	67 (67%)	34 (68%)	33 (66%)	
<b>Insulin duration, Median (IQR)</b>	6 (3-10)	7 (3-10)	6 (3-10)	.912
<b>Insulin use duration categories</b>				
Less than 5 years	37 (37%)	19 (38%)	18 (36%)	.975
5 to 10 years	41 (41%)	20 (40%)	21 (42%)	
More than 10 years	22 (22%)	11 (22%)	11 (22%)	
<b>Insulin type</b>				
Syringe	36 (36%)	14 (28%)	22 (44%)	.208
Pen	58 (58%)	32 (64%)	26 (52%)	
Syringe and pen	6 (6%)	4 (8%)	2 (4%)	
<b>Daily injections, Median (IQR)</b>	2 (2-2)	2 (2-2)	2 (2-2)	.562
<b>Number of daily injections</b>				
1	15 (15%)	10 (20%)	5 (10%)	.496
2	73 (73%)	33 (66%)	40 (80%)	

3	9 (9%)	5 (10%)	4 (8%)	
4	3 (3%)	2 (4%)	1 (2%)	
<b>Number of discarded syringes per month, Median (IQR)</b>	10 (6-26)	13 (5-30)	8 (7-15)	.690
<b>Number of discarded pen needles per month, Median (IQR)</b>	8 (5-10)	10 (6-15)	6 (4-10)	.131



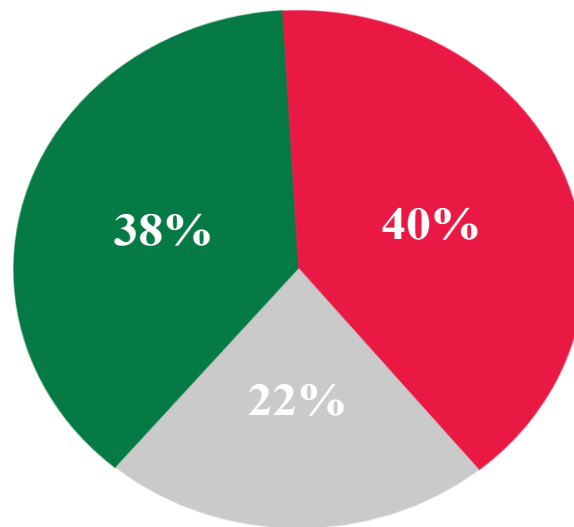
**Duration of diabetes in the intervention group**



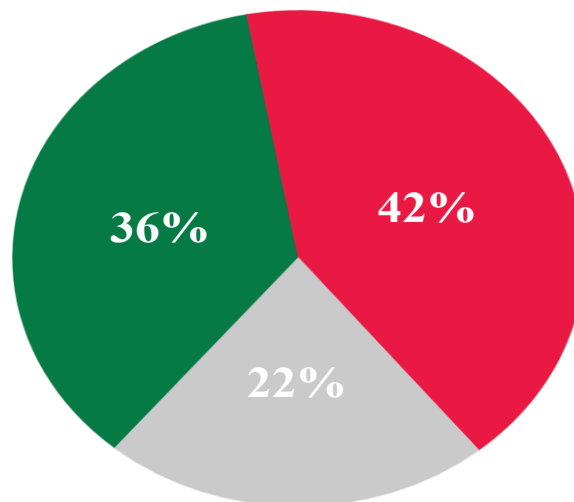
### Duration of diabetes in the non-intervention group

■ Less than 5 years    ■ 5 to 10 years    ■ More than 10 years

Figure (4.2): Duration of diabetes in the intervention and nonintervention groups



### Duration of insulin use in the intervention group



### Duration of insulin use in non-intervention group

■ Less than 5 years    ■ 5 to 10 years    ■ More than 10 years

Figure (4.3): Duration of insulin use in the nonintervention and intervention groups

