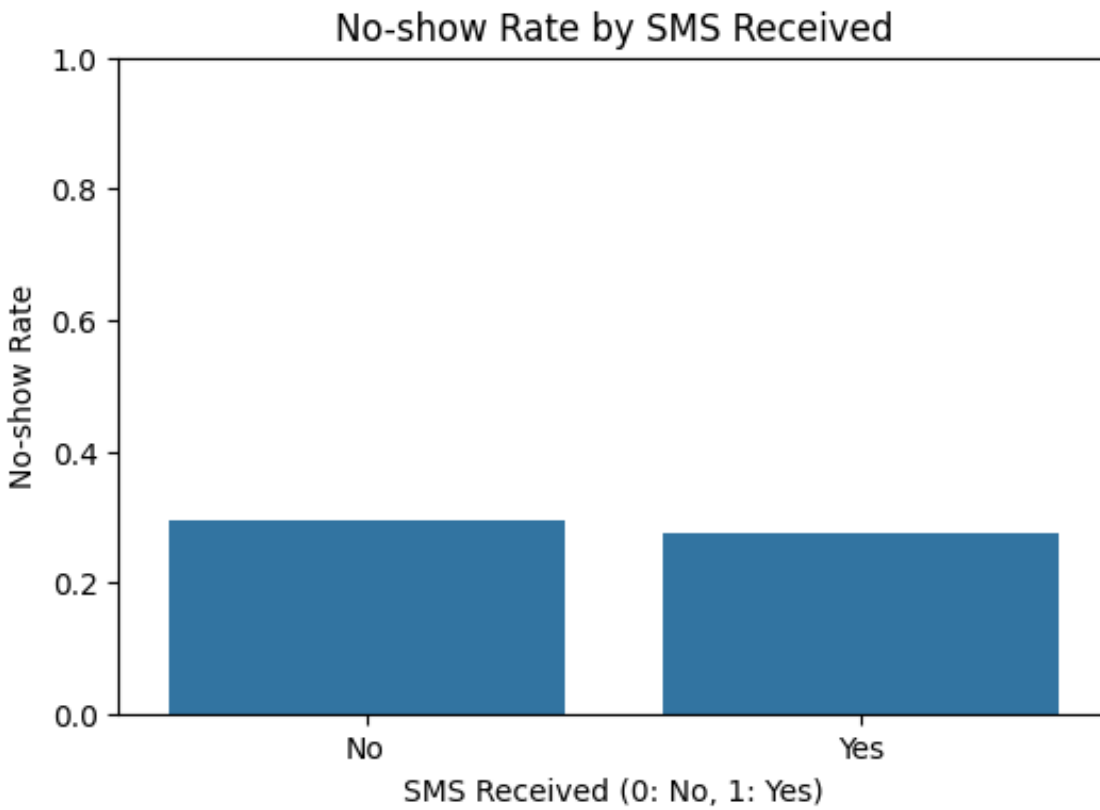# Summary of Visualizations
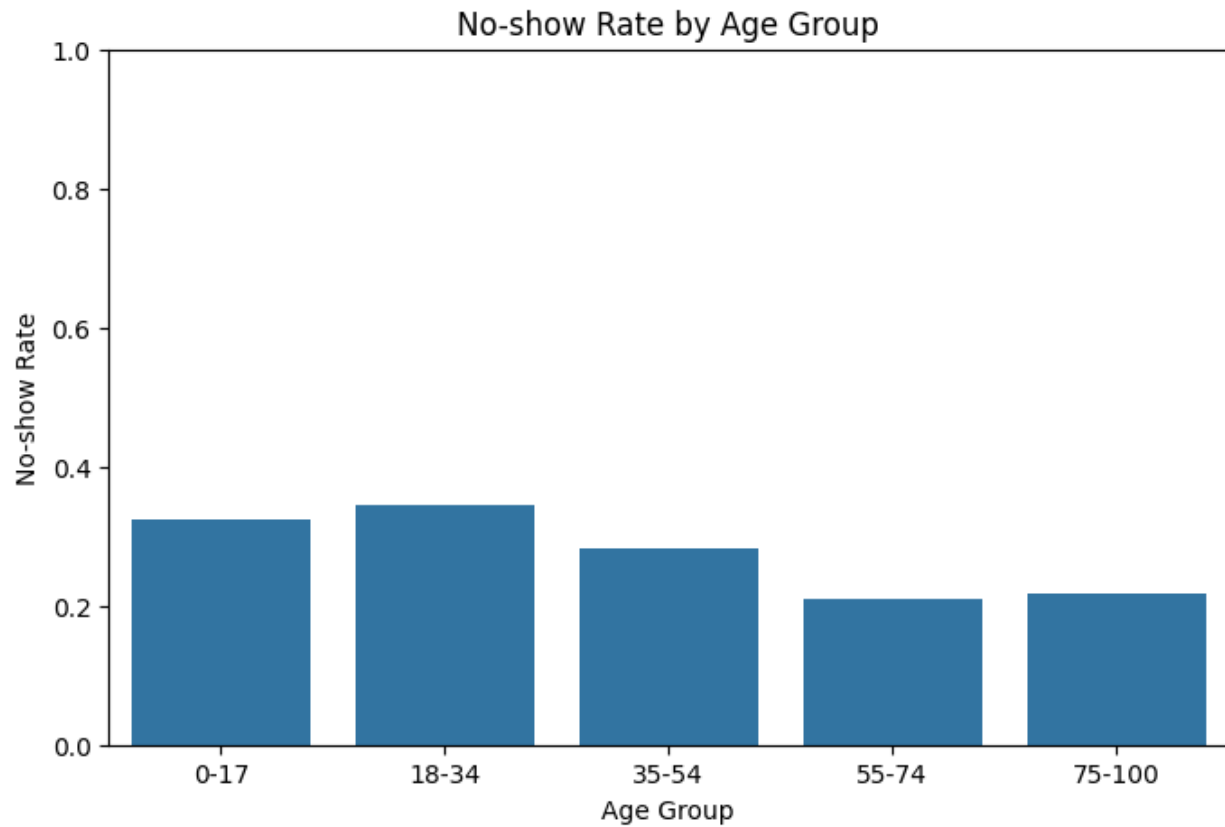
📊 1. No-show Rate by SMS Received

Insight: There is no significant difference in no-show rates between those who received SMS reminders and those who did not.

Interpretation: SMS reminders may not be effective at reducing no-shows.

👱 👵 **2. No-show Rate by Age Group**
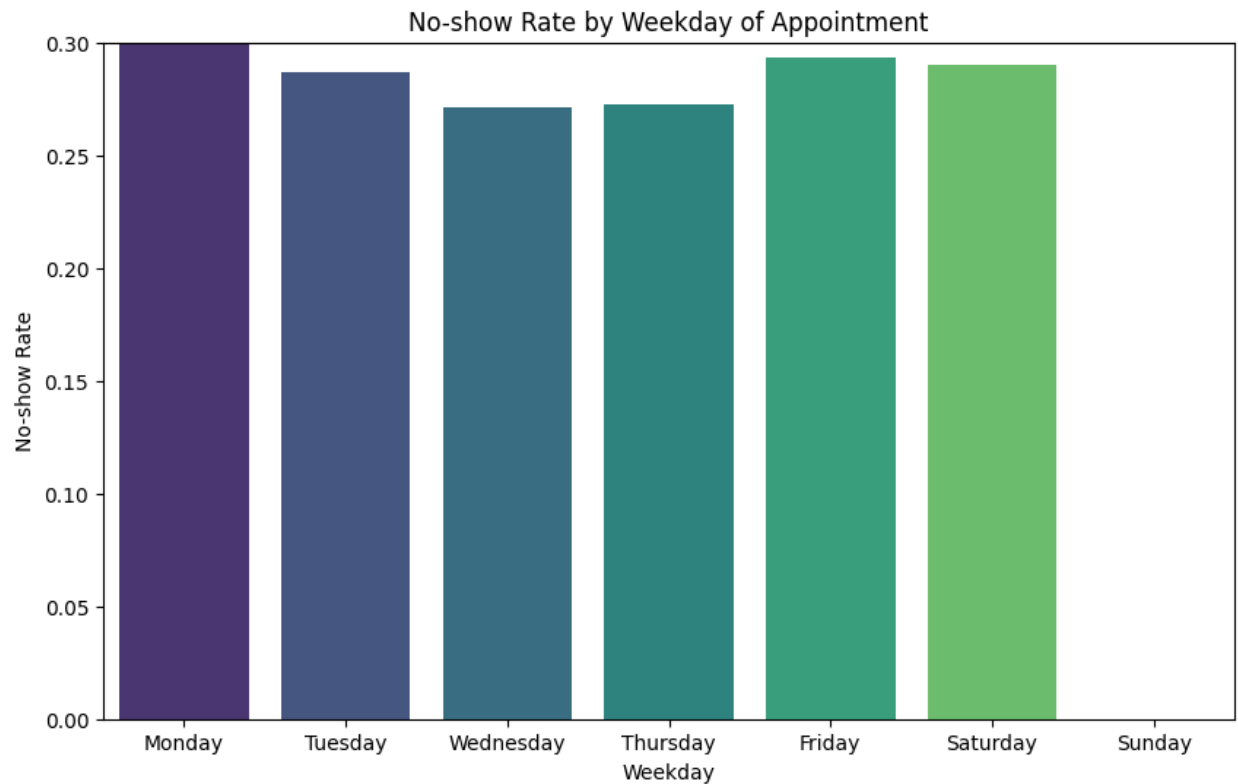

No-show Rate by Age Group

Insight: No-show rates are:

- *Highest in the 18–34 age group.*
- *Lowest in the 55–74 and 75–100 age groups.*

Interpretation: Younger patients are more likely to miss appointments than older ones.

📅 3. No-show Rate by Weekday of Appointment

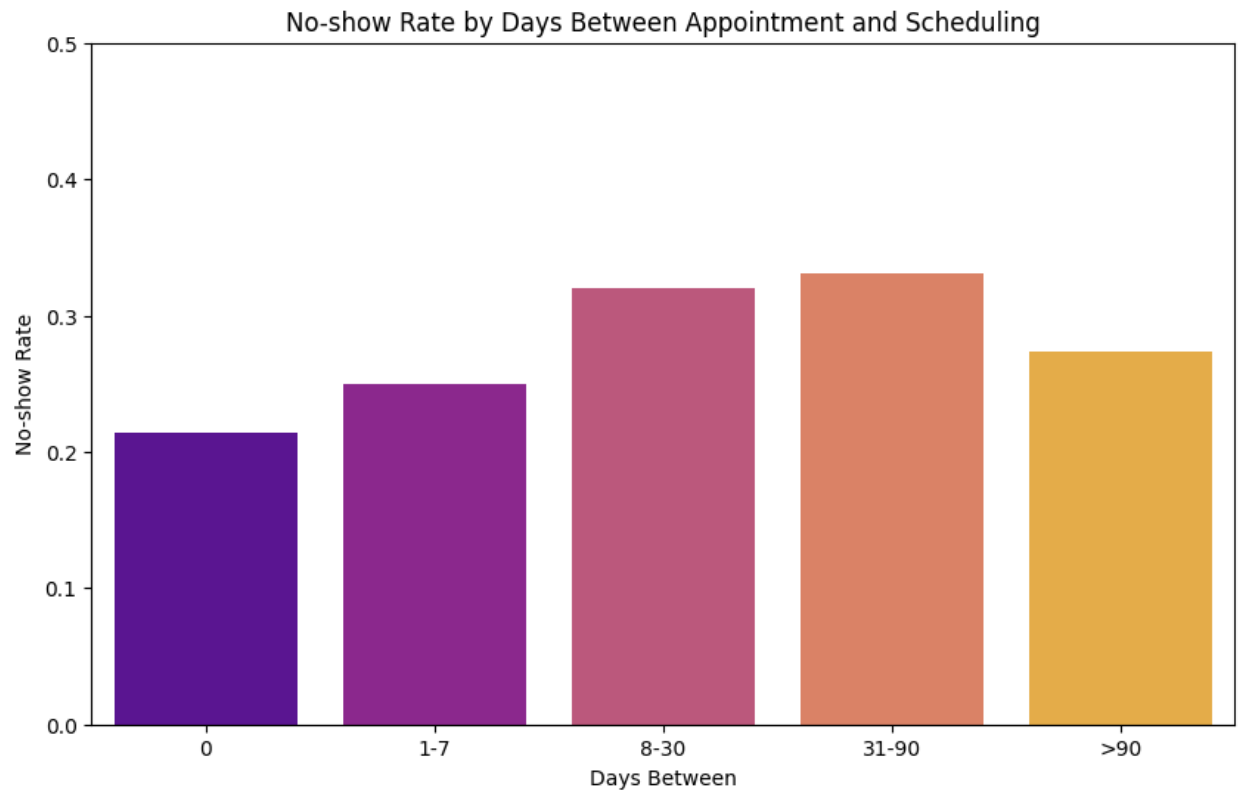No-show Rate by Weekday of Appointment

Insight: Monday has the highest no-show rate.

  – *Midweek (Wednesday, Thursday) has lower no-show rates.*

Interpretation: Appointments earlier in the week might be more prone to no-shows.

## ⌛ 4. No-show Rate by Days Between Scheduling and Appointment

No-show Rate by Days Between Appointment and Scheduling

Insight:

- – *Same-day appointments have the lowest no-show rate.*
- – *No-shows increase with longer wait times (8–90 days).*
- – *After 90 days, the rate drops slightly again.*

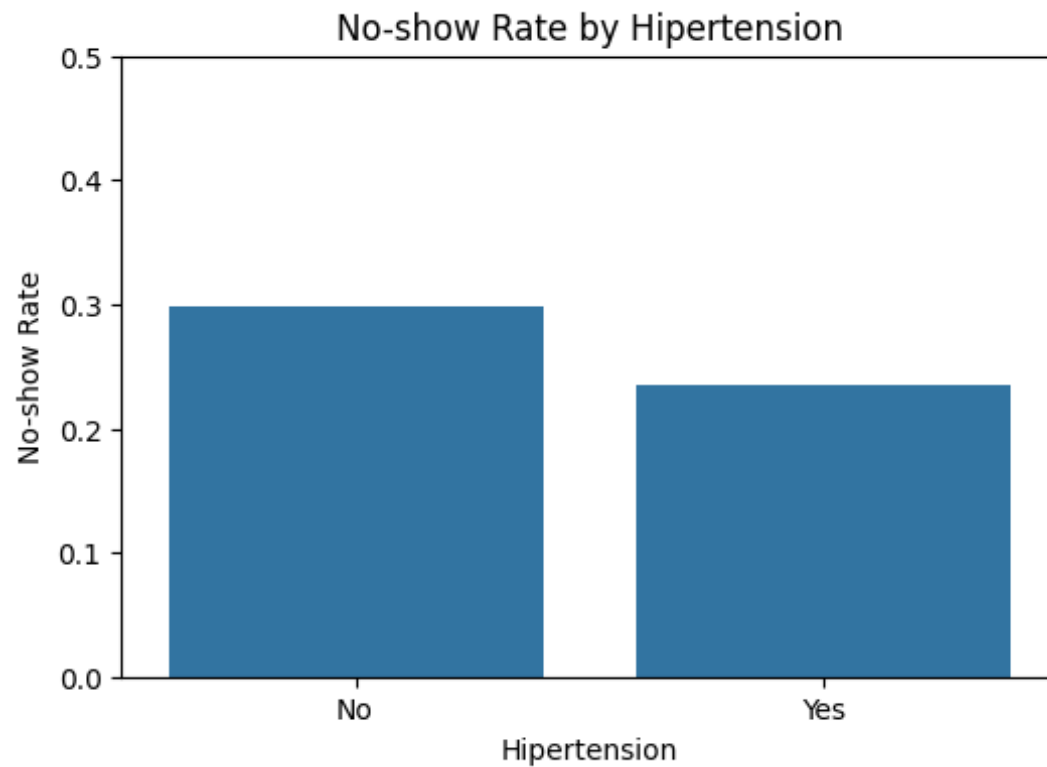*Interpretation: Longer scheduling delays increase the risk of no-shows.*

🎓 5. No-show Rate by Scholarship Status
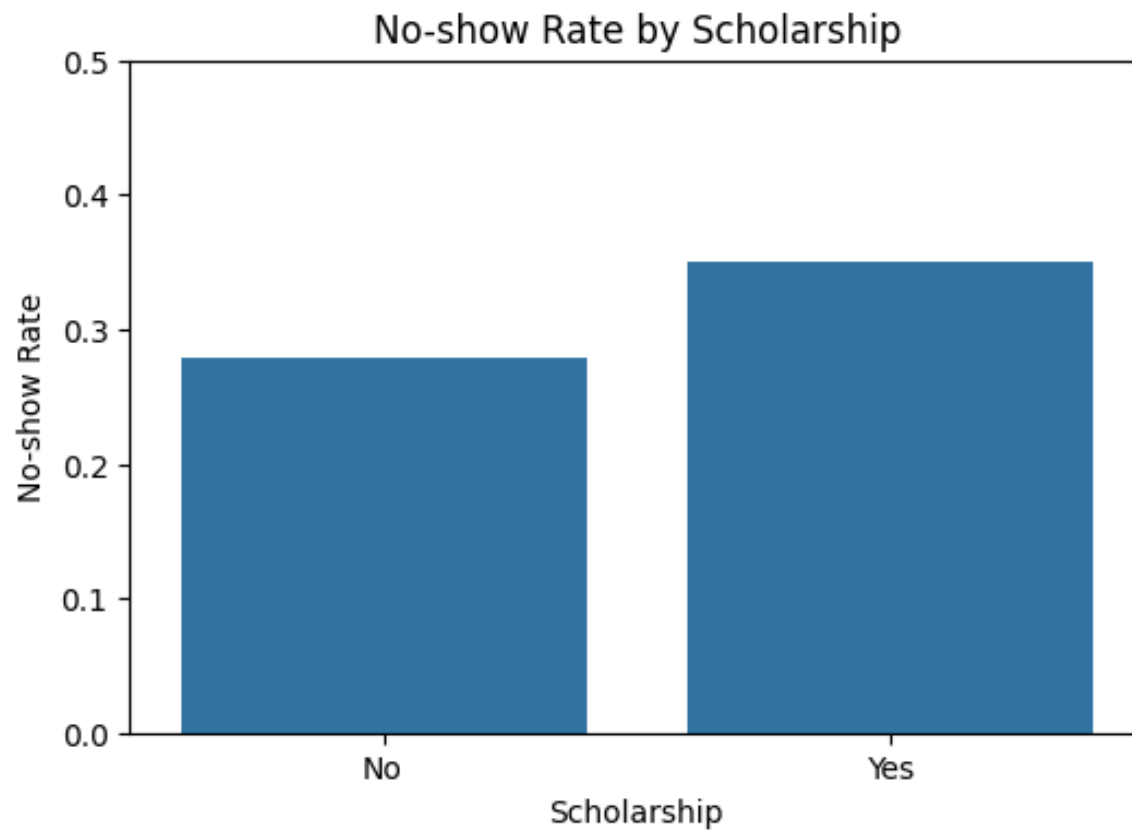
Insight: Patients with a scholarship (likely indicating financial aid) show a higher no-show rate.

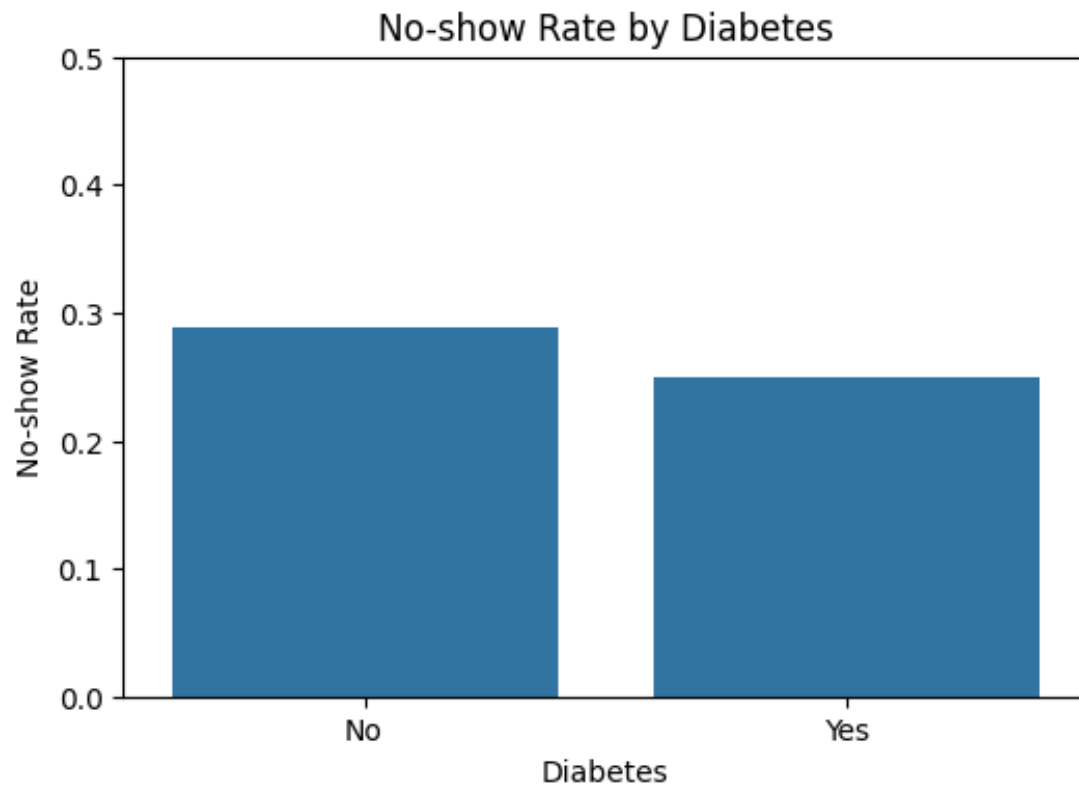*Interpretation: Socioeconomic status may impact appointment attendance.*

❤️ 6. No-show Rate by Hypertension

Insight: Patients with hypertension have lower no-show rates than those without.

Interpretation: People with chronic conditions may be more committed to attending appointments.
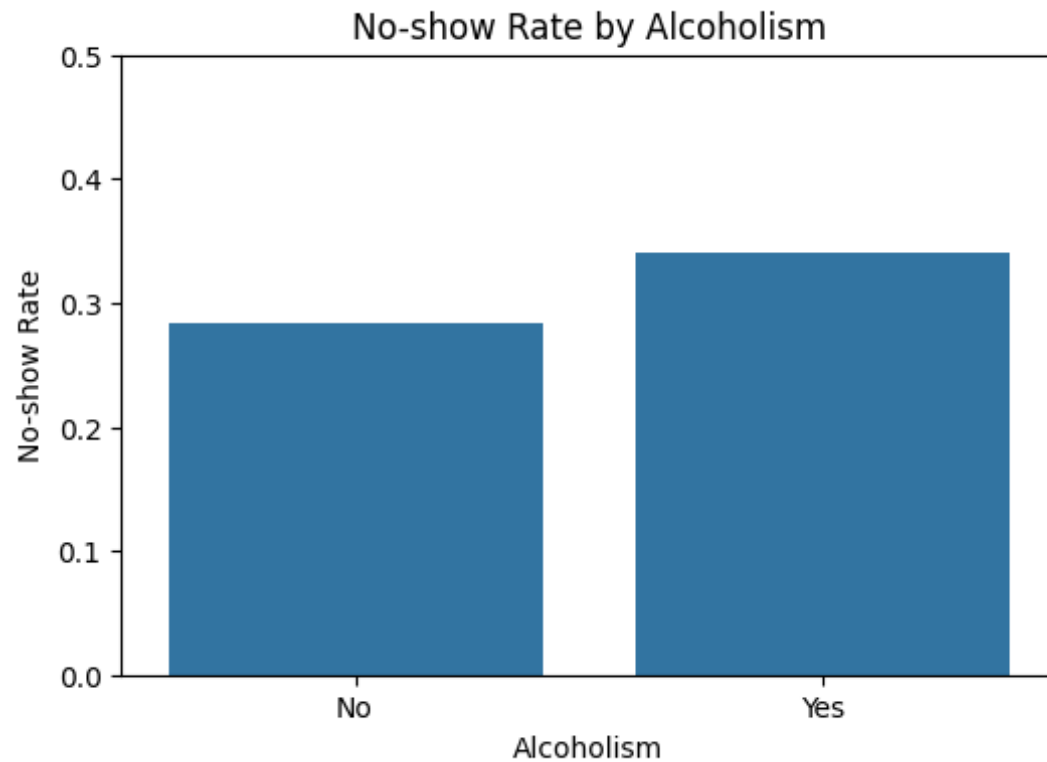
🐓 7. No-show Rate by Diabetes

Insight: Similar to hypertension, those with diabetes tend to show up more than those without.

Interpretation: Chronic disease management appears to be a motivator for attendance.

🍷 8. No-show Rate by Alcoholism

Insight: Patients identified with alcoholism have higher no-show rates.

Interpretation: Alcohol-related behavioral or health challenges may contribute to poor appointment adherence.

🔨 Overall Takeaways:

- **_Key Risk Factors for No-shows_**_:_
  - _Younger age_
  - _Appointments scheduled far in advance_
  - _Financial hardship (scholarship)_
  - _Alcoholism_
- **_Protective Factors_**_:_
  - _Chronic conditions (e.g., hypertension, diabetes)_
  - _Short scheduling time_
  - _Older age_