Optimization Recommendations

1. **Enhance SMS Reminder Strategy**
   Patients who received SMS reminders showed a significantly lower no-show rate.
   It is recommended to send automated reminders one day before and on the day of the appointment, especially for high-risk patients.

2. **Age-Based Appointment Engagement**
   Certain age groups demonstrated higher no-show behavior.
   Targeted reminder timing and personalized communication should be implemented based on patient age groups to improve attendance.

3. **Weekday-Based Scheduling Optimization**
   No-show rates vary across different weekdays.
   High no-show days should have additional reminders or reduced critical appointments, while low no-show days can be utilized for important consultations.

4. **Controlled Overbooking for High-Risk Patients**
   Patients with repeated no-show history can be categorized as high-risk.
   A controlled overbooking strategy can be applied to optimize doctor utilization without affecting service quality.

5. **Appointment Confirmation System**
   Introducing a confirmation mechanism (Yes/No via SMS or link) can help identify uncertain appointments in advance.
   Unconfirmed slots can be reassigned to waitlisted patients.

6. **Continuous Monitoring Using Power BI Dashboard**
   Regular monitoring of SMS effectiveness, age trends, and weekday patterns through the dashboard will support data-driven operational decisions and continuous improvement.