

Yes, since:

$$\sin^2 \frac{\theta - \varphi}{2} \stackrel{\text{QM prediction}}{\leq} \cos^2 \frac{\theta}{2} + \cos^2 \frac{\varphi}{2} \quad \forall \theta, \varphi? \quad \text{eg } \theta = \frac{3\pi}{4}, \varphi = \frac{3\pi}{2}; \text{ the inequality becomes}$$

$$\sin^2 \frac{3\pi}{4} \leq \cos^2 \frac{3\pi}{8} + \cos^2 \frac{3\pi}{4} \Leftrightarrow -\cos \frac{3\pi}{4} \leq \cos^2 \frac{3\pi}{4} \Rightarrow \frac{1}{2} \leq \frac{1}{2} \quad \times$$

$-(\cos^2 \frac{3\pi}{4} - \sin^2 \frac{3\pi}{4})$

Thus, we set up an experiment with these θ, φ and ~~test~~ test whether Bell's inequality is violated by measuring the probabilities. It is, which discriminates against the classical reasoning (and agrees with QM predictions): it's clear that Alice's measurement affects Bob's!