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Question: Should visual distraction vs no treatment be used for reducing vaccine injection pain in adults?^{1,2}

Settings: hospital, clinic

Bibliography: Cason 1997, Jacobson 2006 (2,5)

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Visual distraction	No treatment	Relative (95% CI)	Absolute		
Pain^{3,4} (measured with: validated tool (Visual Analog Scale 0-100, Numerical Rating Scale 0-10, Wong Baker Faces Scale 0-5, Present Pain Intensity 0-5); Better indicated by lower values)												
2	randomised trials	serious ⁵	no serious inconsistency ⁶	serious ⁷	serious ⁸	none	86	91	-	SMD 0.57 lower (1.82 lower to 0.68 higher) ^{3,4}	⊕○○○ VERY LOW	CRITICAL
Fear^{3,4} (measured with: validated tools (Numerical Rating Scale 0-10); Better indicated by lower values)												
1	randomised trials	serious ⁵	no serious inconsistency	serious ⁷	serious ⁸	none	41	40	-	SMD 0.05 lower (0.50 lower to 0.40 higher) ^{3,4}	⊕○○○ VERY LOW	CRITICAL
Distress, Procedure Outcomes, Use of Intervention, Vaccine Compliance, Memory, Preference, Satisfaction (assessed with: no data were identified for these important outcomes)												
0	No evidence available					none	-	-	-	-		IMPORTANT
								0%		-		

¹ In included studies (Cason 1997, Jacobson 2006), participants used a kaleidoscope for distraction.

² Study by Cason (1997) includes outpatients requiring phlebotomy. Study by Jacobson (2006) includes same day surgery patients.

³ Additional data and study details provided by author (Jacobson 2006)

⁴ In Jacobsen 2006, analysis (2) includes males and analysis (5) includes females.

⁵ Operator not blinded; participant not blinded; outcome assessor not blinded

⁶ Heterogeneity can be explained by differences in settings and patients. In addition, in Jacobson 2006, analyses were separated according to sex.

⁷ Context is venipuncture/venous cannulation.

⁸ Confidence intervals cross the line of nonsignificance and the sample size was below the recommended optimum information size (OIS) of 400 for an effect size of 0.2