

Poster presentation

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P15-11. Preventive HIV vaccine acceptability: a systematic review and meta-analysis

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from AIDS Vaccine 2009
Paris, France. 19–22 October 2009

Published: 22 October 2009

Retrovirology 2009, **6**(Suppl 3):P212 doi:10.1186/1742-4690-6-S3-P212

This abstract is available from: <http://www.retrovirology.com/content/6/S3/P212>

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Background

The effectiveness of a preventive vaccine in controlling the epidemic will be contingent on acceptability and access. The objective of this systematic review was to synthesize results from investigations of HIV vaccine acceptability to assess: 1) rates of HIV vaccine acceptability and 2) factors impacting HIV vaccine acceptability.

Methods

We used a comprehensive search strategy to locate relevant articles across multiple electronic databases, including Medline, AIDSline, CINAHL and EMBASE, with no language or time restrictions. We included original qualitative or quantitative studies examining rates or correlates of HIV vaccine acceptability. Two authors independently assessed study quality and extracted data. We conducted meta-analysis on studies reporting correlates or predictors of HIV vaccine acceptability and calculated effect sizes for each variable.

Results

Twenty-nine original studies ($n = 11,477$; 17 quantitative, 12 qualitative) were included, from North America ($n = 24$), Africa ($n = 3$), Central America ($n = 1$) and Asia ($n = 1$). HIV vaccine acceptability, reported in 19 studies, ranged from 94.0 to 37.2 on a 100-point scale, with mean acceptability = 65.6 (SD = 20.5). Mean acceptability was 74.5 (SD = 9.4) at high (80–95%) versus 39.4 (SD = 21.1) at moderate (50%) efficacy ($p < 0.001$), reported concurrently in 10 studies. Twelve studies ($n = 4,768$) were included in meta-analysis. HIV vaccine acceptability was positively correlated with: efficacy ($r = 0.35$, $p < 0.001$),

perceived susceptibility to HIV ($r = 0.26$, $p < 0.001$), and perceived vaccine benefits ($r = 0.17$, $p < 0.05$); and negatively associated with: cost ($r = -0.33$, $p < 0.05$), not being in a "risk group" ($r = -0.32$, $p < 0.001$), pragmatic obstacles ($r = -0.29$, $p < 0.05$), fear of vaccines ($r = -0.20$, $p < 0.05$), side effects/safety concerns ($r = -0.16$, $p < 0.01$), fear of needles ($r = -0.12$, $p < 0.05$), and African American ethnicity ($r = -0.08$, $p < 0.05$).

Conclusion

Findings support development of tailored educational, social and structural interventions to promote uptake of partially efficacious HIV vaccines. Cost subsidies and measures to facilitate access and address vaccine fears, attitudes and low HIV risk perceptions may support roll-out of HIV vaccines.