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Summary: We point out a misleading treatment in a recent paper published in this journal [M. Eshghi and H. Mehraban, ibid. 57, No. 8, 082105, 12 p. (2016; Zbl 1344.81069)] concerning solutions for the two-dimensional Dirac-Weyl equation with a q-deformed pseudoscalar magnetic barrier. The authors misunderstood the full meaning of the potential and made erroneous calculations, and this fact jeopardizes the main results in this system.

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MSC:
81Q05 Closed and approximate solutions to the Schrödinger, Dirac, Klein-Gordon and other equations of quantum mechanics
81U15 Exactly and quasi-solvable systems arising in quantum theory
35Q41 Time-dependent Schrödinger equations and Dirac equations
81R50 Quantum groups and related algebraic methods applied to problems in quantum theory
17B37 Quantum groups (quantized enveloping algebras) and related deformations
82D80 Statistical mechanics of nanostructures and nanoparticles

Full Text: DOI arXiv

References:

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