Table 2.1 Contrast Between Quack Reasoning and Evidence-Based Reasoning

Quack Reasoning	Evidence-Based Reasoning
1. Promises quick, dramatic, miraculous cures (Herbert, 1983). Some examples occur in this sentence: Quack language promises "fast working, inexpensive, painless . . . guaranteed . . . remarkable" results (Miller, 1985).	1. Tries not to extrapolate beyond the findings of the current best evidence. When discussing costs and benefits of a course of action, lists findings in terms that clients can understand (e.g., number needed to treat).
2. Speaks imprecisely and vaguely to describe the client and intended outcome (Herbert, 1983). "It really works! . . ." (Miller, 1985).	2. Speaks precisely in terms of probabilities when assessing risk (Gibbs, 1991, pp. 218–220) and in specific indices of treatment effect size when describing potential benefits of interventions (pp. 206–210).
3. Employs anecdotes and testimonials to support claims (Herbert, 1983).	3. Searches objectively in the current published and unpublished evidence to seek answers to specific practice-related questions (Cochrane Library Home Page, http://www.cochrane.org)
4. Is bound to particular dogma, theory, or beliefs and does not incorporate new ideas or methods based on their evidence (McCain & Segal, 1988, pp. 33–34).	4. Continually updates information regarding important questions with the most recent best evidence (Cochrane Library Home Page, www.nelh.nhs.uk)
5. Cries "foul" when asked to subject ideas to a test (Jarvis, 1987, p. 54; Jarvis & Barrett, 1993, p. 12).	5. Actively seeks criticism, counter evidence, and relies on more than one individual's independent rating of evidence to ensure accurate interpretations for evidence.
6. Joins cults that follow the techniques of a charismatic individual in which members consider themselves to be among the faithful (*Alternative Therapy,* 1986, p. 65).	6. Willing to take risks for adhering to evidence-based beliefs rather than following the dictates of the many and the powerful.
7. Uses the language and phrases of science but not the methodology of science: "research, researcher, scientific discovery. . . . clinical studies prove that . . ." (Miller, 1985, pp. 1–2).	7. Believes that no conclusion is better than the quality of the evidence regarding that conclusion, speaks of testing ideas and states findings tentatively, never "proves" beyond all doubt.
8. Claims that their methods have effects "such that they cannot be tested by normal approved methods of clinical trial" (*Alternative Therapy,* 1986, p. 71).	8. Bases claims on clinical trials. Rates the quality of these trials against criteria for a well-conducted clinical trial (Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000, pp. 106–110).

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