Critical Thinking for Helping Professionals:
A Skills Based Workbook
by Eileen Gambrill and Leonard Gibbs
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Reviewed by
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Much lip service has been paid to the term, “critical thinking,” but questions remain as to how to define it and how best to teach it. The works of psychologist and social work professor Eileen Gambrill and the late Emeritus Professor Leonard Gibbs (1943-2008), bring much-needed clarity to these matters. The following is a review of their workbook titled Critical Thinking for Helping Professionals: A Skills Based Workbook (2009). If one is fortunate enough to be able to teach an entire course in critical thinking, this workbook could be a centerpiece for such a course. However, as is the case for most of us who are not so fortunate, exercises in this workbook can be selected as appropriate and integrated into various courses that are part of a curriculum for mental health professionals in psychology, social work, counseling or other helping professions.

Gambrill and Gibbs begin in Part 1 by defining critical thinking and discussing why it is important. They define critical thinking as “the careful examination and evaluation of beliefs and actions. It requires paying attention to the process of reasoning, not just the product” (p. 4). They also point out that critical thinking does not mean selectively only criticizing views that are opposed to one’s own.

Critical thinking involves the use of standards such as clarity, accuracy, relevance and completeness. It requires evaluating evidence, considering alternative views, and being genuinely fair-minded in accurately presenting opposing views. Critical thinkers make a genuine effort to critique fairly all views, preferred and unpreferred using identical rigorous criteria. They value accuracy over “winning” or social approval (p. 4).

There are two exercises in Part 1. The first is an exercise about making decisions about interventions. This exercise allows the person to reflect on which criteria they might use to make decisions about whether to use an intervention. The participant is presented with a list of 10 criteria for selecting interventions. Some are evidence-based and others (e.g. intuition, personal style) are not. The person is then asked to consider which ones they use to make practice decisions. Next, the person is asked to consider a similar list, but in the context of what they would like for their physician to rely on if they had a serious medical problem. In the third part, the person is presented with the same list, but asked to indicate which criteria they would ideally like to rely on. Follow-up questions are presented for discussion to encourage the person to examine how responses might have differed among situations. Does the person have different criteria for a physician with regard to their own medical problems than they would for a client with a mental health issue?

The second exercise in Part 1 in this section allows the participant to review and identify particular beliefs about knowledge by indicating whether they agree, disagree or are neutral about a series of items. For example, “Everything is relative. All ways of knowing are equally true” (p. 62). The participant is then asked to reflect on which of the beliefs would help clients, which would not, and why. This section is valuable for helping the participant to critically evaluate common beliefs that are pervasive among some mental health professionals who are opposed to scientific evaluation of their practices, such as “Trying to measure client outcome dehumanizes clients, reducing them to the status of a laboratory rat” (p. 62).

The exercises in Part 2 are aimed at helping the participant to recognize propaganda in the advertising of various types of human services. Propaganda is defined as actions deliberately aimed at influencing people with the intent of achieving the agenda of the propagandist. Propaganda appeals to emotions and encourages the person to take shortcuts in their thinking process and thus can undercut a person’s ability to think critically. By learning how to identify such techniques, ideally, their influence can ideally be avoided. The exercises in this section revolve around a presentation (either one recommended by the authors or one of the instructor’s choosing). After viewing the presentation, participants are asked to answer a series of questions designed to assist in spotting propaganda tactics versus valid claims.

Gambrill’s work is grounded in the philosophy of science of Karl Popper, which emphasizes submitting ones claims to rigorous tests to determine if they can be falsified. The focus is on falsification rather than confirmation. Critical thinking involves not only the examination
of other peoples’ claims, but also and most importantly of one’s own most cherished beliefs and claims and the willingness to change one’s mind, if falsified.

In order to be able to examine and challenge our own cherished notions as well as those of others, it is necessary to become very familiar with cognitive biases common to all human beings. Such biases, along with fallacies, can interfere with the critical thinking that is so vital to make good clinical decisions. Thus, there is a great deal of emphasis in the workbook on learning about and being able to recognize cognitive biases, as well as on identifying fallacies and common pitfalls mental health professionals fall prey to in their clinical decision making.

Gambrill and Gibbs accomplish this in Part 3, which is entitled “Fallacies and Pitfalls in Professional Decision Making: What They Are and How to Avoid Them” (p. 85). The purpose of these exercises is to help the person identify arguments that are unsound and thus avoid buying into dubious claims.

Part 3 begins with a writing exercise that is to be filled out by the individual participant entitled “The Professional Thinking Form” (p. 91). The form consists of 25 vignettes and is designed to take around 30 minutes to complete. Some of the items employ common practice fallacies and others do not. The fallacies presented are ones commonly employed by helping professionals in a variety of different disciplines and areas of specialization. The participant is asked to examine each item, determine whether something is wrong with it from a critical/scientific thinking standpoint, and if so, identify the error. Participants are instructed not to leave any items blank, but if they do not know the answer, they may put a question mark next to the item. This exercise can be done before any of the fallacies are actually taught and can give the instructor a good idea of the degree to which each student has prior knowledge of such fallacies. The form can be presented both pre and post doing the group exercises that follow to evaluate what has been learned. Here is an example of a vignette containing fallacies:

Did you attend the workshop on strategic family therapy? Marian Steinberg is an excellent speaker and her presentation was so convincing! She treated everyone in the audience like colleagues. She got the whole audience involved in a family sculpture, and she is such a warm person. I must use her methods with my clients (p. 91).

An example of a non-fallacy:

I note that the authors never define the word codependency in their article on codependency among people who abuse alcohol. I need clarification of this term before I can understand what is being discussed (p. 93).

Next, a series of three reasoning-in-practice exercises are presented in the form of a game that members of the class can play, divided into small groups. These exercises are designed to help professionals recognize biases and fallacies that are implicit in common claims made by mental health professionals. As with the form, some of the vignettes contain fallacies whereas others do not. The exercises are designed to be a fun way to help the class learn to identify these fallacies and cognitive biases. Prior to the exercise, the class is presented with a list of definitions for each fallacy and given an hour to study them. When I did this exercise with my classes, I deviated from these instructions by providing the class with a PowerPoint presentation of each fallacy, accompanied by graphics, examples and in some cases, directing them to websites.

Following the initial learning period, the class divides into small groups of approximately four to six people and examines the vignettes. To make the exercise more fun, some of the vignettes can be acted out and the groups can compete against one another for a prize. Points are awarded for reaching group consensus on the correct answer and the group with the most points is declared the winner. The workbook contains three such exercises: 1) common practice fallacies (p. 107); 2) group and interpersonal dynamics which contain fallacies and pitfalls that can occur within the context of a group (for example groupthink and stereotyping)(p. 125) and 3) cognitive biases (p. 139).

I have done the first exercise with a practice class I taught and the third exercise with a statistics class and found that the exercises engaged the students’ interest in a topic that might otherwise been perceived as being dry and boring. Some of the cases contained more than one fallacy and provoked interesting and challenging discussions over which one was most predominant. Although currently there are no data that I am aware of to show whether these exercises are effective in helping students to carry their awareness of these fallacies into future practice, teaching techniques such as these are worthy of future study.

Following the group exercises is an exercise entitled “Preparing a Fallacies Film Festival” where members of the class are paired up, select a fallacy and demonstrate a vignette containing that fallacy in the form of a scripted skit, which can be posted on YouTube for other students to see.

The next exercise in this series (Exercise 10) instructs the student to select a passage related to their profession and then critique it by identifying the main fallacy it contains. Students are instructed to provide verbatim quotes, APA style, but cautioned to not take a quote out of context.

The final exercise in Part 3 is designed to help the participant to identify and avoid groupthink that may occur at team meetings, case conferences, or other professional
group activities. Although this application is not specifically mentioned in the workbook, this exercise could also be applied to Internet listserv groups created with listservers and frequented by mental health professionals where examples of groupthink abound. Janis’ (1982) conditions and suggestions for avoiding or decreasing groupthink are presented. In the accompanying exercise, participants are asked to keep track of the number and type of indicators of groupthink that they observe occurring in a group they attend (e.g. case conference or team meetings) for a period of a week and identify the most common groupthink ploy being used. The participants are then instructed to select a method for decreasing groupthink and encourage members to implement it and then, once again, rate the groupthink indicators after the implementation.

Part 4, entitled “Evidence-Informed Decision Making” (p. 167) presents a series of exercises designed to assist the participant in carrying out the steps of evidence-based practice (EBP) (Sackett, Straus, Richardson, Rosenberg & Haynes, 2000; Straus, Richardson, Glasziou, & Haynes, 2005). This section is very valuable, since misconceptions and questions about how to apply EBP to practice abound. The exercises in this section basically walk the person through the steps of EBP by first identifying and describing them and then, giving participants exercises they can do to acquire the needed skills to apply them. Gambrill and Gibbs add a preliminary step (Step 1) to the workbook, “Become motivated to offer clients evidence-informed services” (p. 171). The motivation offered by the authors is that, throughout history, well-intentioned efforts to help others have sometimes resulted in unintentionally producing iatrogenic effects. A critical examination of evidence is the way to protect clients from such harm. The steps (2 through 6) that follow (Sacket et al., 2000; Straus et al., 2005) consist of formulating an answerable question, tracking down the best evidence, critical appraisal of that evidence, integrating that appraisal with clinical expertise and unique client characteristics, values and expectations and evaluating the outcome, including seeking ways to improve in the future.

The exercises in Part 5 are designed to help participants to critically appraise various types of research using a variety of standardized guidelines such as CONSORT for effectiveness/efficacy studies, STROBE for observational studies and QUORUM for meta-analyses. The exercises in this section are very valuable for helping participants acquire the necessary skills to evaluate research claims being made, rather than relying on research claims being made by proponents of various methods disseminated to the media, which may not note serious methodological flaws. A recent example of this is a meta-analysis of long-term psychodynamic psychotherapy (LTPP), widely reported in the media, proclaiming its superiority to short-term empirically supported therapies (Leichsenring & Rabung, 2008). Upon closer examination, the meta-analysis contained serious flaws that precluded such conclusions being made (Bhar et al., 2010). If mental health professionals were able to master the skills taught in these exercises, such erroneous conclusions can be avoided and clients better served. Also included in this section are exercises on evaluating diagnostic tests, classification systems such as those found in the Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association, and evaluating research that involves causes.

Part 6 presents a series of exercises related to reviewing decisions made in human services practices including evaluation of plans for clients, consideration of ethical issues and dilemmas, examination of arguments related to claims that impact a client’s life, identification of harms that may occur from lack of critical thinking, critical thinking when examining case records, and the final exercise in this section, which provides the participant with the opportunity to identify and evaluate claims pertaining to reviewing decisions.

The final section, Part 7, is aimed at what we can do to improve educational and practice environments. The purpose of these exercises is to help the students apply what they have learned about critical thinking to their practice setting or educational environment. Since obviously not all work or educational environments are open to a critical thinker, the exercises in this section help the participant to prepare for dealing with obstacles and objections that are likely to arise in such an environment, including the practica, internships and field placements required of social work and psychology students. Students who receive a sound and thorough education in critical thinking and science-based practice may be in for a rude awakening when they enter such environments. Unfortunately, in such environments appeals to tradition, authority, and anecdotal evidence can be the norm, rather than critical thinking and EBP. Often empirical evidence is not considered as a factor in selecting the interventions being proposed and conducted at such agencies. This section addresses what a student or new employee might do to make the transition from classroom to work and where possible, effect change in such an environment.

The first exercise in this section (Exercise 33) presents a checklist that can be used to evaluate the degree to which a work setting encourages critical thinking and appraisal of its practices. The purpose is to help the person identify areas where changes might be made to encourage a culture that is more open to thoughtfulness and critical appraisal. For example, is there transparency about the evidence of practices and policies that are used? Is critical appraisal of claims being made welcomed? Are practices promoted through the use of testimonials? Are people who point out errors thanked? Is there a system to identify errors? Are mistakes and errors regarded as learning
opportunities? The person is then asked to consider what the three greatest strengths and weaknesses are of their workplace, select one characteristic of thoughtfulness and then formulate, present and implement a plan for improvement. Additionally, the participant is asked to select three fallacies and keep track of how often they occur during case conferences.

Exercise 34 provides a checklist for evaluation of the extent to which instructors use critical thinking in their classroom. The authors state up front that as with many of the other checklists employed in this workbook, the checklist has not, to date, been tested for reliability and validity. The checklist can be used as a guide to suggest areas for improvement, but since it has not been tested for reliability and validity, participants need to be cautious in drawing any firm conclusions from such a checklist. The authors suggest that future testing could be done on such an instrument to determine whether, for instance, there is a relationship between high scores and students learning more.

Exercise 35 describes how a person can set up a journal club where professionals can work together to gather the best evidence to assist in making practice decisions, learn about new evidence, or learn evidence-informed practice skills. Exercise 36 provides a series of self-evaluation questions that the person can use to continue their process of self-development as they continue to acquire and practice the steps of evidence-based practice. The final exercise, Exercise 37, lists a number of personal barriers and blocks to critical thinking a person may encounter, adapted from Adams (1986) and Gambrill (2005, 2006). Types of blocks (with subcategories) include motivational, emotional, perceptual, intellectual, cultural, expressive and excuses (a list of common excuses is provided). The person is then asked to select an obstacle to work on; describe how it affects work with clients; describe a plan for decreasing the obstacle and what they did to carry out that plan.

As can be seen from the scope and breadth of the sections of this workbook, it covers a great deal of territory when it comes to critical thinking and the application of EBP. Many clinicians have misconceptions about EBP, believing that it only involves the selection of empirically supported treatments from a list. In contrast, Sackett’s definition of EBP, which is the one Gambrill has introduced to the social work profession, involves a process that goes beyond simply selecting a treatment from a list dictated by an authoritative body. Rather, EBP requires critical thinking and evaluation on the part of the clinician. The exercises of this workbook can help clinicians to better understand the process of EBP and how they can realistically and concretely be applied to their practices, rather than being seen as a cumbersome, abstract, authoritative threat to their flexibility and creativity that they now must comply with. Critical thinking and EBP may appear to be an anathema to many clinicians, especially those who were educated and interned in a day where authority-based practice and/or clinical intuition and lore were the norm. The exercises in this workbook put to rest many of those myths, by demonstrating that EBP can be a much more flexible and creative process than rigid adherence to a non-evidence-based authoritarian dogma that does not allow for questioning and critical thinking.

As many of us who have tried to encourage a more critical, scientific approach among clinicians have found, implementing EBP and encouraging critical appraisal of cherished notions seems to be an uphill battle. People cannot be forced to think critically with rules and regulations. Critical thinking needs to be taught and voluntarily adopted by those who recognize its value. Workbooks like this one can provide us tools for a way forward in the dissemination of a more critical, evidence-based approach, especially if students are taught these skills from the very beginning and understand that their usage provides them with the best opportunity to truly help the clients they serve. New graduates of social work and clinical psychology programs, given such skills along with the motivation and the tools to implement them in their workplace can eventually change the face of mental health practice as we know it today, from one of clinical lore and authority to one of critical appraisal and evidence-based practice where assessment procedures and interventions are carried out that truly serve our clients’ best interests.

References
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Monica Pignotti received her Ph.D. in social work from Florida State University and her Masters Degree in Social Work from Fordham University. She has worked as a researcher in Geriatrics at Saint Vincent’s Hospital in New York City and taught at Florida State University and Tallahassee Community College. She is the co-author of the book *Science and Pseudoscience in Social Work* forthcoming from Oxford University Press.