



AMERICAN COUNSELING
ASSOCIATION

VISTAS Online

VISTAS Online is an innovative publication produced for the American Counseling Association by Dr. Garry R. Walz and Dr. Jeanne C. Bleuer of Counseling Outfitters, LLC. Its purpose is to provide a means of capturing the ideas, information and experiences generated by the annual ACA Conference and selected ACA Division Conferences. Papers on a program or practice that has been validated through research or experience may also be submitted. This digital collection of peer-reviewed articles is authored by counselors, for counselors. *VISTAS Online* contains the full text of over 500 proprietary counseling articles published from 2004 to present.

VISTAS articles and *ACA Digests* are located in the ACA Online Library. To access the ACA Online Library, go to <http://www.counseling.org/> and scroll down to the LIBRARY tab on the left of the homepage.

- Under the Start Your Search Now box, you may search by author, title and key words.
- The ACA Online Library is a member's only benefit. You can join today via the web: [counseling.org](http://www.counseling.org) and via the phone: 800-347-6647 x222.

Vistas™ is commissioned by and is property of the American Counseling Association, 5999 Stevenson Avenue, Alexandria, VA 22304. No part of *Vistas*™ may be reproduced without express permission of the American Counseling Association. All rights reserved.

Join ACA at: <http://www.counseling.org/>



Article 3

The Next Advancement in Counseling: The Bio-Psycho-Social Model

David M. Kaplan

Associate Executive Director for Professional Affairs, American Counseling Association

and Sharon L. Coogan

Graduate Student, George Mason University

All professions start out with an idea. Medicine began when barbers shaved some customers a little too close and found that the bleeding helped them with physical ailments (which is why a traditional barber's pole has red swirls). So, too, counseling started out with an idea: talking and/or testing can help people with a variety of issues.

As professions grow from their initial idea, they begin to develop competing ideas. We imagine that in its earlier days, medicine argued about whether leeches or blood letting was the best way to go about bleeding patients. Counseling, too, developed opposing camps. In the personal counseling arena, psychodynamic advocates squared off against Skinnerians who opposed the cognitive behaviorists. Vocational specialists had to choose whether a client's needs were best met by attending to preferences (trait and factor theory), personality (Holland codes), or developmental stages (Super's theory).

As professions mature, they seem to learn that many approaches have a piece of the puzzle. The question changes from "Who is right and who is wrong" to "What works best in a given situation." It is not so much that each theory is a different animal as that each paradigm is touching a different part of the elephant. For example, medicine learned that cancer is best approached with drugs in some situations, surgery in others, and radiation with yet a third set of patients.

It can be argued that counseling reached this more mature stage in 1967 when Gordon Paul posed his famous question, "What treatment, by whom, is most effective for this individual with that specific problem and under which set of circumstances?" (Paul, 1967, p. 111). Paul's question moved the counseling profession forward by catalyzing the era of outcome based research. We now have (and continue to develop) a body of empirical knowledge that speaks to the efficacy of specific approaches in specific situations.

Counseling theory, however, has lagged behind counseling research and has not responded to Paul's

question even after 35 years have elapsed. Paradigms are still stuck in the "This is the right theory and the others are wrong" rut. The psychodynamic approach says that every problem is helped by developing insight. rational emotive behavior therapy (REBT) suggests that restructuring cognitions is always the answer. Choice theory claims that its decision-making framework for taking personal responsibility is for all clients. Systems theory says that focusing on the family system is always the way to go in couples and family counseling. Or so it seems.

Why have counseling theories not responded to Paul's question and revised their models to focus on which approach works in which particular situation? One possibility is that prevalent counseling theories are simply not sophisticated enough. Each model speaks to a particular part of the elephant and is not robust enough to take a step back and look at the entire animal. Counseling needs a comprehensive paradigm that is broad based and allows assessment and intervention across the variety of modalities and specialties in our profession.

There is such a paradigm. It just isn't used in the world of counseling. Search the most common counseling theory texts and you will not find it. Sit in on a graduate Theories of Counseling class and it probably will not be mentioned. Go to the ACA annual convention and you will likely not find a single presentation among the 400+ programs that speaks to it. Ask the typical LPC about it and he or she will draw a blank. But it does exist. It is the Bio-Psycho-Social (BPS) model.

A Brief History of the Bio-Psycho-Social Model

Throughout history, there have been people who have challenged the world to reject the status quo and embrace some new vision of reality. In April 1977, George Engel, a professor of psychiatry and medicine, wrote an article for *Science* that posed that kind of

challenge. Engel (1977) offered an entirely new way to conceptualize human health and illness: the Bio-Psycho-Social model. He rejected the prevailing paradigm, the biomedical model, including “the notion of the body as a machine, of the disease as the consequence of the breakdown of the machine, and of the doctor’s task as repair of the machine” (p. 131). He criticized the medical community for its acceptance of the biomedical model as dogma, and for failing to acknowledge its weaknesses and limitations. Engel implored the world to accept that “the boundaries between health and disease, between well and sick, are far from clear...for they are diffused by cultural, social, and psychological considerations” (p. 132).

Since the 1980s medical schools, influenced by the Bio-Psycho-Social perspective, have been teaching patient-centered, problem-based interview skills (Zimmerman & Tansella, 1996), including open-ended questions, reflection, and attending to nonverbal behavior. Although the Bio-Psycho-Social model has been promoted by medical schools and major medical organizations, it has not been fully integrated into the actual practice of medicine, and the biomedical model continues to prevail (Alonso, 2004; Cohen, Krackov, Black, & Holyst, 2000; Dowrick, May, Richardson, & Bundred, 1996; Zimmerman & Tansella, 1996).

Psychiatry has also adopted Engel’s vision, albeit in a limited way. In 1980, when the American Psychiatric Association published the third edition of the *Diagnostic and Statistical Manual of Mental Disorders*, it added the multi-axial system which “promotes the application of the Bio-Psycho-Social model in clinical, educational, and research settings” (p. 25). Although the multi-axial system supports the comprehensive bio-psycho-social assessment of clients’ psychiatric concerns, the emphasis remains on the Axis I and Axis II diagnostic categories, which are rooted in the biomedical, disease model of mental illness.

Certain specialized areas of medicine have more fully embraced a bio-psycho-social perspective, such as family medicine (Trilling, 2000). In addition, the fields of integrative medicine and behavioral medicine utilize alternative or complementary medical practices, which have been growing in popularity since the 1980s and include interventions such as nutritional supplements, herbs, meditation, imagery, biofeedback, and cognitive-behavioral techniques (Keefe, Buffington, Studts, & Rumble, 2002; Shannon, 2002; Smith, Kendall, & Keefe, 2002; Zittell, Lawrence, & Wodarski, 2002). The Bio-Psycho-Social model has also extended beyond the medical world to other professions and disciplines. Since the 1980’s, the field of psychoneuroimmunology has been examining the relationship between social/environmental stress,

psychological and behavioral factors (e.g., coping skills, emotions), and immune system functioning (Karren, Hafen, Smith, & Frandsen, 2002; Kiecolt-Glasser, McGuire, Robles, & Glasser, 2002). The abundant empirical evidence supporting the interconnectedness of stress, emotions, behavior, and health that psychoneuroimmunologists have put forward supports the validity of the Bio-Psycho-Social model (Trilling, 2000).

The fields of psychology, social work, and counseling have all begun adopting the bio-psycho-social perspective in research (Smith, Kendall, & Keefe, 2002; Suls & Rothman, 2002). In practice, the use of the Bio-Psycho-Social model in these fields often involves interdisciplinary care of individuals in medical settings and/or collaboration with medical doctors (McDaniel, 1995; Suls & Rothman, 2002; Zittell, Lawrence, & Wodarski, 2002). Dwairy (1997) suggested that using Bio-Psycho-Social models (rather than traditional models of psychotherapy) may be more appropriate when working with non-Western clients, who often have a more holistic worldview and view the mind and body as integrated.

The bio-psycho-social perspective has been applied to numerous medical, psychological, and behavioral phenomena including eating disorders (Ricciardelli & McCabe, 2004; Rogers & Smit, 2000); pain management (Covic, Adamson, Spencer, & Howe, 2003; Kellen, 2003; Truchon, 2001); chronic fatigue (Johnson, 1998); gastrointestinal illness (Drossman, 1998); substance abuse (Marlatt, 1992); HIV/AIDS (Markus, Kerns, Rosenfeld, & Brietbart, 2000); schizophrenia (Kotsiubinskii, 2002; Schwartz, 2000); antisocial behavior (Dodge & Petit, 2003); racism (Clark, Anderson, Clark, & Williams, 1999); infertility (Gibson & Myers, 2000); gestational weight gain (Olson & Strawderman, 2003); spinal cord injury (Mathew, Ravichandran, May, & Morsley, 2001); and diabetes (Peyrot, McMurry, & Kruger, 1999). While this list is impressive, the vast majority of medical and psychological research continues to focus exclusively on either biological or psychosocial systems, respectively (Alonso, 2004; Suls & Rothman, 2002). It appears that although Engel’s (1977) vision for a new paradigm for the conceptualization of health, illness, and problems of living has yet to be fully realized, substantial gains have been made in the past quarter century.

Defining the Bio-Psycho-Social Model

The Bio-Psycho-Social model is a comprehensive, integrative, and elegant model that allows us to address all major areas of the presenting issue across three

spheres: physical, psychological, and sociocultural. It allows (and actually encourages) us to holistically examine the interactive and reciprocal effects of environment, genetics, and behavior (Stevens & Smith, 2005, p. 25). Let's briefly examine each of these three areas from a counseling perspective.

Bio

Bio, of course, stands for biology and reflects the physical, biochemical, and genetic factors that both influence a client's problem and lead to helpful medical interventions. While counseling's identity is rooted in human growth and development, we cannot ignore the physical aspects of our client's presenting problem when they are present. Nor can we ignore advancements in the physical sciences that are helpful to our clients. For example, a school counselor needs to assess the possibility of vision or hearing difficulties in a student who is referred to counseling for failing grades. A career counselor needs to help a 5 foot 6 inch male high school senior whose sole focus is on a professional basketball career integrate his height limitations into the career planning process. Given the body of research on unipolar depression that shows the efficacy of both counseling and medication, it is now considered standard practice for a mental health counselor to refer all clients diagnosed with depression to a psychiatrist or physician to see if antidepressant medication is warranted. A final example occurs with college counselors who serve students with bulimia. These counselors need to incorporate the biologically focused set point theory into their treatment plan.

Psycho

This area speaks to the strengths of professional counselors. We are well trained in how to assess and select interventions for developmental and psychological issues. Clinical counselors are also trained in psychopathology. So our profession has many tools to choose from in each of these three (developmental, psychological, and psychopathology) areas. As an example in the developmental realm, rehabilitation counselors are trained to investigate whether a client's disability has altered the normal development of both self-efficacy and self-esteem. Career counselors focus on whether a vocational client is stuck in the career development process. Group counselors have expertise in facilitating the developmental stages of an unstructured personal growth group or a structured assertiveness training group. Gerontological counselors help clients work through the later stages of adult development.

In the psychological intervention realm, we have the whole range of theories covered in the typical

Theories of Counseling class. Person-centered counseling helps us to understand the therapeutic aspects of the counseling relationship. Psychodynamic theory focuses on underlying dynamics. Adlerian counseling promotes a strength-based approach and supports the importance of helping society. Cognitive behavior therapy trains us to identify and modify irrational beliefs and faulty cognitions. Behavior therapy teaches us techniques for altering maladaptive behaviors. Multimodal therapy, perhaps the counseling theory that comes closest to the Bio-Psycho-Social model in terms of comprehensiveness, gives us tools to assess a wide variety of client characteristics including behavior, affect, sensations, imagery, cognitions, interpersonal relationships, and drugs/biology. Existential theory helps us to understand how important it is for clients to determine the purpose and meaning of their lives. The Gestalt approach gives us techniques for dealing with emotional baggage in the here and now. Choice theory focuses on how to help clients make and implement healthy decisions. Feminist therapy teaches us to fight gender discrimination and to assess role issues. And so on.

The third area, psychopathology, is covered by training in disorders encompassed by the *Diagnostic and Statistical Manual for Mental Disorders (DSM-IV-TR)* (American Psychiatric Association, 2000). These include psychotic disorders, mood disorders, anxiety disorders, dissociative disorders, sexual and gender identity disorders, eating disorders, adjustment disorders, impulse control disorders, childhood disorders, and personality disorders. Psychopathology assessment and intervention also means being able to utilize the *DSM-IV-TR* multiaxial assessment model (I: Clinical Disorders; II: Personality Disorders/Mental Retardation; III: General Medical Conditions; IV: Psychosocial and Environmental Problems; V: Global Assessment of Functioning) (p. 27) and being able to use the *DSM-IV-TR* decision trees (pp. 745-757) or other clinical models to conduct a differential diagnosis.

Social

The counseling profession has focused on three areas that can be considered under the social area of the Bio-Psycho-Social model (BPS): family systems theory, diversity, and social justice. Family systems theory is generally taught in a couples and family counseling course, although many counselor education programs have infused systems theory throughout their coursework. Perhaps the most prominent institution in this regard is Governors State University in Illinois.

Professional counselors use systems theory to assess the effects of family dynamics on a client's issue. Systems theory has helped us to understand that family

communications, family problem solving, family roles, and family boundaries can each have a substantial impact on issues seemingly unrelated to the client's home life (Kaplan, 2003).

Attention to diversity in counseling began in 1972 with the chartering of a new division of the American Counseling Association named the Association of Non-White Concerns (ANWC). As can be seen by the title, ANWC focused on race. Specifically, it was established to focus on the needs of African Americans, a group that had been long neglected by the counseling profession. ANWC pushed professional counseling to the forefront of mental health professions on the issue of racial understanding, something that all counselors can be proud of.

As the multicultural movement in counseling grew, it began to embrace additional races such as Hispanic/Latino/as, Native Americans, and Asians. Books and articles detailing techniques and approaches for counseling clients across cultures began to appear. ANWC grew and evolved into the Association for Multicultural Counseling and Development and published the seminal operationalization of the *Multicultural Counseling Competencies* (Arredondo et al., 1996). These competencies advanced the profession by framing and defining the skills and strategies necessary for all counselors to provide culturally appropriate services. As multiculturalism expanded beyond race and ethnic cultures, the term *diversity* became prominent. Sue and Sue (2003) detailed the many diversity areas that professional counselors across specialties need to attend to in assessment and the development of appropriate interventions: race, sexual orientation, marital status, religious preference, culture, disability/ability, ethnicity, geographic location, age, socioeconomic status, and gender (p. 12).

Social justice was actually the impetus for starting the counseling profession in the early 1900s when Frank Parsons wanted to find a way to help "wayward youths" gain employment and therefore stay out of trouble. Social justice then seemed to take a back seat to the desire for counselors to work with upper middle class White clients on individual problems. It wasn't until the 1960s that a social justice theme reemerged with the community counseling movement. This movement envisioned community mental health centers in every town providing free or low cost outreach and remedial services. The idea was to bring counseling to the community rather than having to make people come to the counselors, and to help as many people as possible, especially previously neglected societal groups such as ethnic minorities, the poor, and chronic substance abusers. Although the community counseling movement was not able to fully realize its goals due to

a lack of funding, its legacy is seen in the community mental health centers that exist throughout the United States.

The current incarnation of social justice in counseling seems to have started in the mid-1990s as the political sibling of the multicultural and diversity movement. Sometimes referred to as the fifth force in counseling (after the psychodynamic, behavioral, humanistic, and multicultural forces) by its advocates, (Ratts, D'Andrea, & Arredondo, n.d.), social justice in counseling gained energy in 1999 with the establishment of a new ACA division, Counselors for Social Justice (CSJ). The CSJ mission seeks "...equity and an end to oppression and injustice affecting clients, students, counselors, families, communities, schools, workplaces, governments, and other social and institutional systems." Counselors for Social Justice promulgated a set of advocacy competencies in 2003 that have defined a set of skills that all counselors should have in their repertoire in order to identify oppression and implement social justice initiatives. Both the mission statement just referenced and the advocacy competencies are available at the CSJ Web site, www.counselorsforsocialjustice.org/. The social justice movement in counseling has continued its momentum with the recent establishment of the first graduate counseling program in which students can major in social justice at George Mason University in Virginia.

Applications of the Bio-Psycho-Social Model to Counseling

The elegance of the Bio-Psycho-Social model lies in the fact that it is the first paradigm that provides an assessment and intervention model that can be used by all specialties in the counseling profession. It also, therefore, provides an individual counselor a robust model that, for the first time, carries across different types of counseling modalities (e.g., individual mental health counseling, career counseling, family counseling, substance abuse counseling) that may be utilized with a particular client. Table 1 shows applications of the Bio-Psycho-Social model across a variety of counseling specialties. Please note that for purposes of visual simplicity, each box is filled with one issue. Therefore, Table 1 is not meant to provide an exhaustive list of all bio-psycho-social issues for the listed presenting problems. It *is* meant to show that common presenting problems across the counseling spectrum of specialties have issues across all seven BPS spheres. Let us take a sampling and look at examples from Table 1 across the three most common specialties in our profession: mental health counseling, school counseling, and career counseling:

Table 1
Counseling Applications of the Bio-Psycho-Social Model

Speciality	Presenting Problem	BIO	Developmental	PSYCHO	Psycho pathology	Family Systems	SOCIAL
Mental Health Counseling	Adolescent depression	Biochemical/Genetic Antidepressant medication	Need for independence	Psychological Catastrophizing	Depression vs dysthymia	Parental conflict	Diversity Gender issues Family discrimination
School Counseling	Failing grades	Learning disabilities	Social skills	Modeling	Oppositional defiant disorder	Identified patient	Racial discrimination Fairness of school policies
Career Counseling	Career indecisiveness	Physical limitations	Decision-making skills	Fear of failure	Chronic indecisiveness	Worldview generalizations	Geographic location Educational opportunities
College Counseling	Bulimia	Set point	Comfort with maturation process	Body image	Obsessive-compulsiveness	Perfectionism	Socio-economic status Age discrimination
Rehabilitation Counseling	Low self-esteem	Physical abilities (as opposed to disabilities)	Effect of disabilities on normal development of self-esteem	Feelings of inferiority	Clinical depression	Family rules	Disability/ability Disability discrimination
Substance Abuse Counseling	Smoking cessation	Nicotine patch or gum	Coping with peer pressure	Classical conditioning	Anxiety disorder	Family support	Culture Health insurance equity
Gerontological Counseling	Death of spouse	Eating patterns	Generativity	Stages of grief and loss	Suicidal ideation	Children	Religious preference Age discrimination

Mental Health Counseling: Adolescent Depression

A common presenting problem for mental health counselors is depression in teenagers and young adults. The Bio-Psycho-Social model first has us look at any biochemical or genetic factors involved in causing or exacerbating the depression. In keeping with the previously mentioned body of knowledge indicating that a combination of counseling and psychotropic medication alleviates clinical depression better than either counseling or medication alone, a referral to a physical health care specialist is also made to see if antidepressant medication is appropriate.

The counselor then moves to the psycho part of the model and examines relevant developmental, psychological, and psychopathological issues. These include, but certainly are not limited to, assessing any relationship between the depression and the adolescent's normal developmental need for independence, looking at whether any cognitive-based catastrophizing about school, relationships, or other issues is occurring, and making a diagnosis as to whether the client is presenting with depression or dysthymia. This last issue is important because a diagnosis of dysthymia may indicate that the client is mislabeling sadness as depression. Interventions should then be tailored to the results of the assessment across these psycho areas.

The adolescent with a presenting problem of depression is then assessed across the three social areas of family systems, diversity, and social justice. The counselor helps the client determine if conflicts with his or her parents are contributing to or exacerbating the depression. The counselor also looks at gender issues to see if the client is being stereotyped into male or female roles that are limiting growth and development and leading to depression. Finally, the counselor assesses whether any family discrimination issues are a contributing factor to the depression. For example, the client might be depressed, in part, because he or she feels that siblings are allowed to engage in activities not made available to the client.

School Counseling: Failing Grades

A school counselor helping a student with failing grades first wants to look at biological issues such as the presence of a learning disability. If a learning disability (or other biological issue such as attention deficit hyperactivity disorder) is present, the counselor and student then work with the school psychologist and other appropriate school personnel to design a comprehensive plan that minimizes the effect on the student's educational progress.

The school counselor then utilizes his or her knowledge of human development to assess whether social skills (or other) training would be appropriate.

This might pertain to the student who is failing classes in part because fighting is resulting in numerous suspensions. The counselor also assesses whether a lack of positive modeling is affecting the student (e.g., the student may be hanging out with kids who value partying over studying) and designs an intervention to involve the student with positive role models if that is the case. In the third psycho area, psychopathology, the counselor assesses for oppositional defiant disorder and, if present, determines why the student feels a need to be oppositional.

The student with a presenting problem of failing grades also is assessed across the three BPS "social" areas: family systems, diversity, and social justice. As an example of a systems issue, the counselor investigates whether the student was the family "identified patient" and sabotaging his or her grades as a way to signal that the family needs help (Napier & Whitaker, 1978). Diversity issues also are addressed. If the student is from a racial minority, the counselor assesses the impact of racism on the student and on the student's grades. A social justice perspective also is utilized to look at such issues as whether the school's policies were fair and whether any unjust regulations are having an effect on the grades of the student. For example, a teacher may have given the students one particular grading rubric at the beginning of the term and then arbitrarily changed the rubric shortly before the end of the term. In this case, the school counselor has the responsibility, with the client's permission, to work with the teacher and school administration to ensure that the student is not penalized by the change in rules.

Career Counseling: Career Indecisiveness

A career indecisiveness client is one who is unable to choose potential career paths. As with any client, the BPS model first looks at whether any biochemical or genetic factors are influencing the indecision. As Table 1 indicates, one of these factors could be physical limitations. For example, a male career client may have his heart set on a professional basketball career and be unwilling to look beyond that option despite the fact that he stands substantially under 6 feet tall. A female client may be focused on being a keyboard player in a rock band even though she has a low aptitude for musical instruments. Please note that the BPS model does not mean to say that the counselor should tell these clients not to pursue their dreams. It does, however, provide encouragement to factor the physical limitations into the treatment plan for the career indecisiveness.

As with the two other presenting problems just discussed, the BPS model next looks at any developmental, psychological, and psychopathological

issues that might be involved directly or indirectly with the career indecisiveness. A developmental issue that might arise in this case is the client's ability to utilize problem solving skills. The counselor then assesses the client's ability to develop options, to delineate pros and cons of each option, and to do a cost/benefit analysis. Deficits in any of these areas could be addressed when selecting appropriate interventions for the client. In the psychological realm, a fear of failure is not uncommon in career indecisive clients. If found, a treatment plan addressing the fear of failure should be incorporated into the counseling.

Psychopathology comes into play when the client has chronic career indecisiveness. Chronic career indecisiveness occurs when a client is ready to make an occupational decision, has the skills and knowledge to do so, but is still unable to commit to a direction. In this case, the counselor may want to determine whether there are any *DSM-IV-TR* mental disorders present in the client that are interfering in the career decision-making process.

In order to take a comprehensive BPS approach to a career indecisive client, a counselor should also examine the three social areas. Family systems can come into play when family worldview generalizations interfere with a client's career interests. Worldview generalizations refer to the observations that are made about the world we live in (Mitchell & Krumboltz, 1990). As an example, a career indecisive client may find that becoming a carpenter fits in well with his or her interests, values, skills, and personality. However, the client may come from a family that feels that blue collar occupations that focus on working with one's hands are not "good enough" and so be caught between personal fulfillment and family rules.

An example of attending to diversity in a career indecisive client involves geographical location. The client may be in a rural location that simply does not have the density of jobs to provide sufficient opportunities for fulfilling work. A few years ago there was a session at the Canadian Counseling Association that spoke to this issue. The presenter was a career counselor who spent his time visiting rural Canadian Native American villages to work with high school students. This was a challenging position, as Native American children typically stay in their village after school and, as such, have limited occupational opportunities. He went to one remote village with six students in the senior class and found that all six were majoring in auto mechanics. This was puzzling to him, as the village had only two roads and four vehicles. Because he knew that the students were unlikely to move from their village, he asked them why all six were majoring in auto mechanics when the village only had

four vehicles. The answer he got back was, "Our guidance counselor showed us the Occupational Outlook Handbook, and it said that auto mechanics was a growth industry."

The third BPS social area, social justice, may present itself when assessing the educational opportunities available to the career indecisive client. The client may come from a particular background or region where training is not available or is too costly. When career indecisiveness is a result of the lack of educational opportunities, the counselor has a responsibility to help both the client and society develop options for accessible and affordable education for all strata of our society.

Conclusion

The counseling profession finally has a model sophisticated enough to use across all specialties, modalities, and presenting problems. The Bio-Psycho-Social model provides one paradigm that can be used with a client regardless of whether the counseling is focused in a mental health, school, career, family, or other area. By encouraging the counselor to comprehensively assess and develop appropriate interventions across physical, psychological, and sociocultural spheres, the BPS model is also the first approach that allows counselors to stay within one process when changing modalities with the same client. Using the Bio-Psycho-Social model results in a client that is holistically viewed and has individually tailored interventions designed across the areas of biology, human development, psychology, psychopathology, family systems, diversity, and social justice. By the time you take all of that into account, there isn't a whole lot left to influence the presenting problem.

References

- Alonso, Y. (2004). The Biopsychosocial model in medical research: The evolution of the health concept over the last two decades. *Patient Education and Counseling*, 53, 239-244.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual for mental disorders* (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual for mental disorders* (4th ed., text revision). Washington, DC: Author.

- Arredondo, P., Toporek, R., Brown, S. P., Jones, J., Locke, D. C., Sanchez, J., & Stadler, H. (1996). Operationalization of the multicultural counseling competencies. *Journal of Multicultural Counseling and Development, 24*, 42-78.
- Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans: A Biopsychosocial model. *American Psychologist, 54*, 805-816.
- Cohen, J., Krackov, S. K., Black, E. R., & Holyst, M. (2000). Introduction to human health and illness: A series of patient-centered conferences based on the Biopsychosocial model. *Academic Medicine, 75*, 390-396.
- Covic, T., Adamson, B., Spencer, D., & Howe, G. (2003). A Biopsychosocial model of pain and depression in rheumatoid arthritis: A 12-month longitudinal study. *Rheumatology, 42*, 1287-1294.
- Dodge, K. A., & Petit, G. (2003). A Biopsychosocial model of the development of chronic conduct problems in adolescence. *Developmental Psychology, 39*, 349-371.
- Dowrick, C., May, C., Richardson, M., & Bundred, P. (1996). The Biopsychosocial model of general practice: Rhetoric or reality? *British Journal of General Practice, 46*, 105-107.
- Drossman, D. A. (1998). Gastrointestinal illness and the Biopsychosocial model. *Psychosomatic Medicine, 60*, 258-267.
- Dwairy, M. (1997). A Biopsychosocial model of metaphor therapy with holistic cultures. *Clinical Psychology Review, 17*, 719-732.
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science, 196*, 129-136.
- Gibson, D. M., & Myers, J. E. (2000). Gender and infertility: A relational approach to counseling women. *Journal of Counseling & Development, 78*, 400-410.
- Johnson, S. K. (1998). The Biopsychosocial model and chronic fatigue syndrome [Editorial]. *American Psychologist, 53*, 1080-1081.
- Kaplan, D. M., & Associates. (2003). *Family counseling for all counselors*. Greensboro, NC: American Counseling Association/CAPS.
- Karren, K. J., Hafen, B. Q., Smith, N. L., & Frandsen, K. J. (2002). *Mind/body health* (2nd ed.). San Francisco: Benjamin Cummings.
- Keefe, F. J., Buffington, A. L., Studts, J. L., & Rumble, M. E. (2002). Behavioral medicine: 2002 and beyond. *Journal of Consulting and Clinical Psychology, 70*, 852-856.
- Kellen, M. J. (2003). Biopsychosocial model of pain management. In F. Yuen et al. (Eds.), *Family health social work practice: A knowledge and skills based casebook* (pp. 193-201). Binghamton, NY: Haworth Social Work Practice Press.
- Kiecolt-Glaser, J. K., McGuire, L., Robles, T. F., & Glaser, R. (2002). Psychoneuroimmunology: Psychological influences on immune function and health. *Journal of Consulting and Clinical Psychology, 70*, 537-547.
- Kotsiubinskii, A. P. (2002). A Biopsychosocial model of schizophrenia. *International Journal of Mental Health, 31*(3), 51-60.
- Markus, K. S., Kerns, R. D., Rosenfeld, B., & Breitbart, W. (2000). HIV/AIDS-related pain as a chronic pain condition: Implications of a Biopsychosocial model for comprehensive assessment and effective management. *Pain Medicine, 1*, 260-273.
- Marlatt, G. (1992). Substance abuse: Implications of a Biopsychosocial model for prevention, treatment, and relapse prevention. In J. Gabowski (Ed.), *Psychopharmacology: Basic mechanisms and applied interventions* (pp. 131-162). Washington, DC: American Psychological Association.
- Mathew, K. M., Ravichandran, G., May, K., & Morsley, K. (2001). The Biopsychosocial model and spinal cord injury. *Spinal Cord, 39*, 644-649.
- McDaniel, S. H. (1995). Collaboration between psychologists and family physicians: Implementing the Biopsychosocial model. *Professional Psychology: Research and Practice, 26*, 117-122.
- Mitchell, L. K., & Krumboltz, J. D. (1990). Social learning approach to career decision making: Krumboltz's theory. In D. Brown & L. Brooks (Eds.), *Career choice and development* (pp. 145-196). San Francisco: Jossey-Bass.

- Napier, A., & Whitaker, C. (1978). *The family crucible*. New York: Harper & Row.
- Olson, C. M., & Strawderman, M. S. (2003). Modifiable behavior factors in a Biopsychosocial model predict inadequate and excessive gestational weight gain. *Journal of the American Dietetic Association, 103*, 48-54.
- Paul, G. (1967). Insight versus desensitization in psychotherapy 2 years after termination. *Journal of Consulting Psychology, 31*, 333-348.
- Peyrot, M., McMurry, J. F., & Kruger, D. F. (1999). A Biopsychosocial model of glycemic control in diabetes: Stress, coping, and regimen adherence. *Journal of Health and Social Behavior, 40*, 141-158.
- Ratts, M., D'Andrea, M., & Arredondo, P. (n.d.). *Social justice counseling: Fifth force in field*. Retrieved October 25, 2004, from <http://www.counseling.org/Content/NavigationMenu/PUBLICATIONS/COUNSELINGTODAYONLINE/JULY2004/SocialJusticeCounsel.htm>
- Ricciardelli, L. A., & McCabe, M. P. (2004). A Biopsychosocial model of disordered eating and the pursuit of masculinity in adolescent boys. *Psychological Bulletin, 130*, 179-205.
- Rogers, P. J., & Smit, H. J. (2000). Food craving and food "addiction": A critical review of the evidence from a biopsychosocial perspective. *Pharmacology, Biochemistry, and Behavior, 66*, 3-14.
- Schwartz, R. C. (2000). Suicidality in schizophrenia: Implications for the counseling profession. *Journal of Counseling & Development, 78*, 496-499.
- Shannon, S. (Ed.). (2002). *Handbook of complementary and alternative therapies in mental health*. San Diego: Academic Press.
- Smith, T. W., Kendall, P. C., & Keefe, F. J. (2002). Behavioral medicine and clinical health psychology: Introduction to the special issue, a view from a decade of behavior. *Journal of Consulting and Clinical Psychology, 70*, 459-462.
- Stevens, P., & Smith, R. L. (2005). *Substance abuse counseling: Theory and practice* (3rd ed.). Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.
- Sue, D. W., & Sue, D. (2003). *Counseling the culturally diverse: Theory and practice* (4th ed.). New York: Wiley.
- Suls, J., & Rothman, A. (2002). Evolution of the Biopsychosocial model: Prospects and challenges for health psychology. *Health Psychology, 23*, 119-125.
- Trilling, J. S. (2000). Psychoneuroimmunology: Validation of the Biopsychosocial model. *Family Practice, 17*, 90-93.
- Truchon, M. (2001). Determinants of chronic disability related to low back pain: Towards an integrative Biopsychosocial model. *Disability and Rehabilitation: An International Multidisciplinary Journal, 23*, 758-767.
- Zimmerman, C., & Tansella, M. (1996). Psychosocial factors and physical illness in primary care: Promoting the Biopsychosocial model in medical practice. *Journal of Psychosomatic Research, 40*, 351-358.
- Zittell, K. M., Lawrence, S., & Wodarski, J. S. (2002). Biopsychosocial model of health and healing: Implications for health and social work practice. *Journal of Human Behavior in the Social Environment, 5*, 19-33.