



Association for Scientific Advancement
in Psychological Injury and Law



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Gerald Young, Ph.D.

Department of Psychology, Glendon College, York University
2275 Bayview Ave., Toronto, Ontario, Canada, M4N 3M6

Website: www.asapil.org
E-mail: gyoung@glendon.yorku.ca



Trends in Psychological/ Psychiatric Injury and Law:

Practice Comments, Recommendations



Foreword


- Precis of article of the same name
- *Psychological Injury and Law* Volume 4, 2011
- References available in the article



Major Areas in *Psychological/ Psychiatric Injury and Law*


The present review focuses on current work in:

- Law (evidence, tort)
- Forensic Psychology
- Assessment and Testing
- Malingering
- Disability
- The AMA Guides to the evaluation of Permanent Impairment (American Medical Association; 2008)
- Psychological Injuries (posttraumatic stress disorder, PTSD; chronic pain; traumatic brain injury, TBI; other)
- Treatment and Treatment Guidelines
- Causality
- Models
- Multicultural Considerations
- The APA DSM-5 *Draft* (Diagnostic and statistical manual of mental disorders; 2010)




Law and Psychological/ Psychiatric Injury

- Judges function as gatekeepers of evidence presented to court, ruling upon admissibility challenges that involve definitions of acceptable as opposed to poor or “junk” science.
- Pursuant to standards outlined in the United States Supreme Court case of *Daubert v. Merrell Dow Pharmaceuticals* (1993).



Law and Psychological/ Psychiatric Injury

- Faust, Grimm, Ahern, and Sokolik (2010) pointed out the difficulty in the translation of legal concepts into the scientific arena, and vice versa.
- Concepts, meanings, and language in one domain are not necessarily similar or the same in other domains.



Law and Psychological/ Psychiatric Injury

- The classic example refers to the different definitions of reliability in law and in behavioral science.
- In behavioral science, it refers to consistency in data.
- However, in law, it refers to validity of the data.

Law and Psychological/ Psychiatric Injury

- The major *Daubert* factors related to admissibility concern whether the evidence reaches acceptable criteria related to
 - (a) Testability
 - (b) Error Rate
 - (c) Peer Review
 - (d) General Acceptance
- Also, the tort reform that is taking place across states is capping compensation for “pain and suffering” (Schatman & Sullivan, 2010).



Forensics and Psychological/ Psychiatric Injury

- Ackerman (2010) provided a useful description of forensic assessment that applies to psychological and psychiatric injury.
- Forensic assessors should be aware of the codes and guidelines extant in the field, even though these codes and guidelines might not be mandated by their professional governing bodies.



Forensics and Psychological/ Psychiatric Injury

- The major codes/ guidelines in the psychological/ psychiatric injury field include:
 - American Psychological Association's Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 2002)
 - Specialty Guidelines for Forensic Psychology (Committee on the Revision of the Specialty Guidelines for Forensic Psychology, 2010).



Forensics and Psychological/ Psychiatric Injury

- According to Kane (2010), Young (2007) reviewed the literature on the frequency of malingering, and estimates varied from 2 to 64%, which indicates the difficulty in researching it.
- Among other instruments, the MMPI 2 (Butcher et al., 1989, 2001), the PAI (Personality Assessment Inventory, Morey, 1991, 2007), the SIRS (Structured Interview of Reported Symptoms; Rogers, Bagby, & Dickens, 1992), and the TOMM (Test of Malingered Memory; Tombaugh, 1996) can help in detecting its presence.




Forensics and Psychological/ Psychiatric Injury

- Sellbom and Bagby (2008) advised against using the MCMI III (Millon Clinical Multiaxial Inventory–III Manual; Millon, 1997; Millon, Davis, Millon, and Grossman, 2006) in this context.
- Heilbrun, Grisso, and Goldstein (2009) listed the foundational principles that should guide forensic mental health assessment. They emphasized the need to adopt a scientific approach, both in conducting the evaluation and in arriving at conclusions.




Testing and Diagnosis of Psychological/ Psychiatric Injury

- Kane and Dvoskin (2011) have written a practice-oriented book on forensic assessment in the personal injury context.
- They extol the psychometric properties of the MMPI-2 and indicate that it meets the *Daubert* criteria.
- Kane and Dvoskin supported the utility of the Fp scale, in particular.




Testing and Diagnosis of Psychological/ Psychiatric Injury

- As for the FBS, which had been added to the MMPI 2 F family stable, the authors reviewed the exchange on its utility in the journal *Psychological Injury and Law* by Butcher and colleagues and Ben-Porath and colleagues (Butcher, Gass, Cumella, Kally, & Williams, 2008; Gass, Williams, Cumella, Butcher, & Kally, 2010; Williams, Butcher, Gass, Cumella, & Kally, 2009; compared to Ben-Porath, Greve, Bianchini, & Kaufmann, 2009, 2010).
- Kane and Dvoskin commented that, “the false positive rate remains a concern.”




Testing and Diagnosis of Psychological/ Psychiatric Injury

- Rubenzer (2009) emphasized the MMPI 2 and the SIRS, as well as other tests.
- Rubenzer added that the newer MMPI 2 respondent validity check scales, such as the RBS (Response Bias Scale; Gervais, Ben-Porath, Wygant, & Green, 2007, 2008, 2009; Wygant, Sellbom, Gervais, Ben-Porath, Stafford, Freeman, & Heilbronner, 2010) and the HHI (Henry Heilbronner Index; Henry, Heilbronner, Mittenberg, & Enders, 2006), hold great promise, as does the MMPI 2 RF (Ben-Porath & Tellegen, 2008).




Testing and Diagnosis of Psychological/ Psychiatric Injury

- Thomas and Locke (2010) reported a study confirming the strong psychometric properties of the Somatic Complaints Scale (RC1) of the MMPI-2-RF in patients with epilepsy and those with psychogenic nonepileptic seizures.
- The authors concluded that the scale is well-suited for the assessment of somatization.




Testing and Diagnosis of Psychological/ Psychiatric Injury

- Newer versions of classic tests have come on the market (e.g., the MMPI-2 RF; the SIRS-2).
- The assessor should use these in forensic contexts only when their reliability, validity, sensitivity, and specificity have been adequately established.
- So that to the degree possible the false positive rate is known and is acceptable.



Testing and Diagnosis of Psychological/ Psychiatric Injury

- Butcher (2010) has criticized the development of the MMPI 2 RF.
- Rubenzer (2010) indicated that although the SIRS-2 has many improvements, the manual still includes “erroneous and questionable” arguments and statistics.



Testing and Diagnosis of Psychological/ Psychiatric Injury

- One strategy might be to use both versions of a revised instrument in any one case, and distill the information needed from each of them.
- This is not difficult to do when the items in the two versions of a test remain the same and the scoring procedures simply add on the new information gleaned from the newer version to the original version.



Malingering

- Heilbronner, Sweet, Morgan, Larrabee, Millis, and Conference Participants (2009) developed a consensus statement on neuropsychological assessment of effort, response bias, and malingering.
- The DSM conception and definition do not represent well malingering compared to current neuropsychological approaches (e.g., Slick, Sherman, & Iverson, 1999).



Malingering

- The Slick et al. (1999) criteria to evaluate the presence of malingering require multiple sources of evidence, such as SVTs.
- McGrath, Mitchell, Kim, and Hough (2010) reviewed the literature on response bias as a source of error variance in applied assessment.
- The authors indicated at one point that the defense of the use of response bias indicators in court could be difficult.



Malingering

- However, SVTs and other response bias indicators play an important role in psychological injury assessments.
- The dangers of not using them would be worse than the dangers of using them.
- for we would be reverting to experts proffering opinion based only on subjective indicators and clinical judgment.



Malingering

- Nelson, Hoelzle, Sweet, Arbisi, and Demakis (2010) conducted a meta-analysis of the FBS, part of the MMPI-2 stable of F tests.
- One could ask questions of the meta-review.
- These types of questions do not invalidate the results found, which add a layer of support for the FBS.



Malingering



- It must be kept in mind by practitioners that there is no gold standard in detecting malingering in psychological/ psychiatric injury cases.
- Moreover, the results of one test procedure, no matter how reliable and valid, should not be the sole basis for considering the presence of malingering.



Malingering

- Also, even when evidence points in that direction, it must be incontrovertible
- Or else different means of conveying one's doubt about the truth value of a complainants symptoms should be used.



Malingering



- Berry and Nelson (2010) decried the lack of change in the most current draft of the DSM-5 with respect to malingering.
- They recommended that malingering be removed from the DSM-5, and replaced by the concept of Feigned Psychiatric, Physical, and Neuropsychological Symptoms.



Disability

- In terms of disability determinations, mental health practitioners should distinguish among symptoms, impairments, disorders, functional impacts, and disabilities.
- This includes residual and transferable skills, and ability to return to work (e.g., on modified, part time duties).



Disability

- Peterson and Paul (2009) described the World Health Organization's Model of Health and Disability (WHO, 2001) and their International Classification of Functioning Disability and Health (ICF).
- It avoids diagnostic labels, focuses on function, and emphasizes the interaction of individual and context (e.g., environmental demands and supports for return to work).



The AMA Guides



- The 2008 American Medical Association Guides to the Evaluation of Permanent Impairment (GEPI; Rondinelli et al., 2008) are used widely in assessing impairment and permanent disability.



The AMA Guides



- Leclair, Leclair, and Brigham (2009) reviewed the quality of the Guides.
- They noted that the guides try to balance clinical judgment and science; however, impairment ratings that are included ended up “based largely on consensus and expert opinion,” because of insufficient methodology and data permitting scientific assessment of functional loss.



The AMA Guides



- The authors added that there are significant flaws and problems associated with the Guides' instrumentation, measurement, statistical analysis, and validity in the tools and methods used in impairment ratings.



Psychological/ Psychiatric Injury

PTSD

- Recent research on PTSD is questioning the DSM's "A" criterion. Robinson and Larson (2010) studied college students who had experienced only significant stressful life events, only traumatic events, or both types of events.
- The authors concluded that factors such as loss of job and problems at school could elicit PTSD symptoms as much as traumatic events.



Psychological/ Psychiatric Injury

PTSD

- Kubany, Ralston, and Hill (2010) examined the A2 criterion of intense fear, helplessness, or horror, and found that it might be too broad.
- Dohrenwend (2010) has developed a typology of high-risk stressors. He argued that it could help avoid the issue of whether there is “bracket creep” of the entry criteria to PTSD.



Psychological/ Psychiatric Injury

PTSD

- Long and Elhai (2009) also explored bracket creep in the A2 criterion, and they admitted to arriving at opposite conclusions despite writing together the article.



Psychological/ Psychiatric Injury

PTSD

- The major criteria of PTSD are grouped into three clusters in the DSM, which are intrusive re-experiencing, avoidance/emotional numbing, and hyperarousal.
- Contemporary research has suggested four-cluster models.



Psychological/ Psychiatric Injury

PTSD

- Simms, Watson and Doebbeling (2002) have found factors related to intrusion, avoidance, dysphoria, and hyperarousal.
- Frueh, Elhai, and Acierno (2010) reviewed these and related issues concerning their analysis of the proposed revisions to PTSD in the DSM-5 draft document (American Psychiatric Association, 2010).



Psychological/ Psychiatric Injury

PTSD

- New symptoms have been added, too, and the validity of these additions remain to be determined.
- First (2010) indicated that if the DSM 5 draft proposal to remove the A(2) criterion (reacting to the event with intense, fear, helplessness, or horror) is adopted, it will lead to more opportunity for malingering of PTSD.



Psychological/ Psychiatric Injury

PTSD

- The area of psychological injury and law will be transformed as biomarkers are found for the critical psychological/ psychiatric disorders in events at claim.
- For example, Bryant, Kemp, Felmingham, Liddell, Olivieri, Peduto, Gordon, & Williams (2010) implicated a marker role for the medial prefrontal cortex during nonconscious processing in PTSD.



Psychological/ Psychiatric Injury

PTSD

- However, until they can provide acceptable accuracy, biomarkers should not be taken as gold standards that replace comprehensive assessments, including of response bias.



Psychological/ Psychiatric Injury

PTSD

- Poyner (2010) described her experience assessing veterans with alleged PTSD for disability.
- Her upright approach to testing was dismissed and led to her removal from this type of work. Political reasons seemed involved.



Psychological/ Psychiatric Injury

Pain

- Gatchel et al. (2007) described the biopsychosocial approach to pain experience, which contrasts with the medical model, in particular.
- Schatman and Sullivan (2010) reviewed the literature on affective co-morbidities and pain.



Psychological/ Psychiatric Injury

Pain

- Liedl, O'Donnell, Creamer, Silove, McFarlane, Knaevelsrud, and Bryant (2010) provided evidence for the mutual maintenance of pain and symptoms of PTSD.
- In their model, re-experiencing leads to a sequence of arousal, avoidance, and muscle tension, driving in a vicious circle pain, further avoidance, and re-experiencing.



Psychological/ Psychiatric Injury

Pain

- Otis, Gregor, Hardway, Morrison, Scioli, and Sanderson (2010) found that PTSD contributed to measures of affective distress in a chronic pain population.
- Robinson and O`Brien (2010) argued that pain is multidimensional and it includes mediating factors such as negative affect, interpersonal factors, and perception of degree of life control.



Psychological/ Psychiatric Injury

Pain

- Schatman and Gatchel (2010) and Howard, Kishino, Johnston, Worzer, and Gatchel (2010) provided evidence that a measure of surface electromyography (comprehensive muscular activity profile; CMAP) can detect objectively respondent effort and not only the physical measures to which it is targeted.



Psychological/ Psychiatric Injury

TBI

- Sbordone (2010) queried the ecological validity of tests of executive function, neurobehavioral symptoms, and frontal lobe function.
- Ruff and Jamora (2009) examined the myths involving mTBI.
- They concluded it exists in a miserable minority and that it can endure as a postconcussive condition due to noncentral effects, such as might happen after an MVA (motor vehicle accident).



Psychological/ Psychiatric Injury

TBI

- Gironda, Clark, Ruff, Chait, Craine, Walker, and Scholten (2009) found that polytrauma involving TBI, pain, and PTSD was that much more complicated to treat and it requires an effective integrated program, including cognitive behavioral components.



Psychological/ Psychiatric Injury

TBI

- Schultz (2010) analyzed the proposed changes to the DSM-V related to TBI, as described by the working group involved, and found multiple difficulties.
- Richards and Kirk (2010) offered a tutorial on TBI for attorneys



Psychological/ Psychiatric Injury

Other Psychological Injury Conditions

- Depression and generalized anxiety disorder are among the possible consequences of events at claim, such as motor vehicle collisions (e.g., Duckworth & Iezzi, 2010; Laugharne, Lillee, & Janca, 2010), along with substance abuse disorders.



Psychological/ Psychiatric Injury

Other Psychological Injury Conditions

- Kendall-Tackett (2010) has documented the pernicious role played by depression, anger, and PTSD in inflammation and effects on health.



Psychological/ Psychiatric Injury

Other Psychological Injury Conditions

- With injury, proinflammatory cytokines are released and, along with other factors such as an increase in cortisol response, they act to increase the risk for:
 - **Depression** (e.g., Frasure-Smith & Lespérance, 2005)
 - **Hostility** (Smith, Uchino, Berg, Florsheim, Pearce, Hawkins, Hopkins, & Yoon, 2007)
 - **PTSD** (Sareen, Cox, Stein, Afifi, Fleet, & Asmundson, 2007)



Psychological/ Psychiatric Injury

Other Psychological Injury Conditions

- Long-term consequences of these emotions might include coronary heart disease, pain conditions, and impaired wound healing.



Psychological/ Psychiatric Injury

Other Psychological Injury Conditions

- Assessment in psychological injury cases should address pre-existing psychopathology. In addition, evaluation for the presence of personality disorders is considered cardinal in this field.



Psychological/ Psychiatric Injury

Other Psychological Injury Conditions

- Livesley (2010) indicated that the proposed changes in the DSM-5 draft to the DSM-IV personality disorder section are major.
- Clinicians might find these changes without clinical utility; it could be harder for their patients to get treatment, and it could be harder to have portions of evidence related to PD admitted to court.



Guidelines and Treatment

Guidelines

- Bruns, Müller, and Warren (2010) described “biopsychosocial laws,” or medical-related treatment guidelines for worker’s compensation cases that are taking a more comprehensive direction.
- The system adopted by the state of Colorado exemplifies this new approach to reducing costs and increasing efficacy in dealing with work-related pain and injury.



Guidelines and Treatment

Treatment

- Wachtel (2010) indicated that evidence-based or empirically-supported research on treatment practices (EST) is founded on the gold standard of randomized control trials.
- Usually this type of research involves a study of a single diagnostic category, and usually it involves manualization of treatment.



Guidelines and Treatment

Treatment

- However, he pointed out that the medical research using RCTs employs a double-blind methodology, in which both the patient and doctor are unaware of which drug is being prescribed.
- In psychotherapy research, it is virtually impossible to use a double-blind methodology.



Guidelines and Treatment

Treatment

- About his second major concern, some therapies lend themselves to manualization more than others, essentially excluding from empirical validation and support those that cannot be well manualized.
- Wachtel (2010) concluded that “this is not a championing of science; it is an abdication of science”.



Causality

- The legal tests of causality include substantial cause, minimal cause, material cause, and the but-for-test. The latter two tests are given prominence legally (e.g., Young, 2010b).
- For example, are there pre-event psychological vulnerabilities that can explain complainant presentation in part (the thin skull rule), or in full (the crumbling skull rule)?



Causality

- In the most recent article (Young, 2010b), Young examined the ecological pressures that influence causality determinations, including the pressures of the adversarial divide and the role of legal standards (see Figure 1).



Causality

- He presented work (Haack, 2008) that analyzed the scientific testimony proffered in Daubert according to its scientific validity.
- Paradoxically, the evidence presented in this famous case that led to the Daubert ruling against poor or junk science was not as scientific or impartial as originally maintained by experts called by Dow.



Models

- Young (2008d) constructed tables that summarize 100 factors involved in the biological, social, and psychological influences in somatization, and the tables are summarized here (see Table 1).
- The table illustrates how difficult it is to understand the origins of physical symptoms and the precursors involved in pain conditions deriving from an event at claim.



Models



- The figure after the somatization table indicates the complexity in the pain experience (see Figure 2).
- Not only are there biopsychosocial models to understand pain, the concept of dynamical pain attractors has been applied to understand the way chronic pain becomes deeply ingrained and how it is hard to treat, given the confluence of multiple factors in its origins.



Models

- At the same time, there are health attractors as well as illness attractors that are posited to develop, and therapy can be construed as attempts at shifting the attractor basins involved.



Multicultural and Gender Considerations

- Psychological injuries (e.g., PTSD, chronic pain, TBI) vary with gender and multicultural status, and psychologists need to know the literature on these variations.



Multicultural and Gender Considerations

- Hunter and Schmidt (2010) examined anxiety and psychopathology in African American adults from a sociocultural perspective.
- The literature indicated lower rates of anxiety disorders in African American adults compared to European Americans.



Multicultural and Gender Considerations

- They found lower rates of Generalized Anxiety Disorder, for example, and comparable rates of PTSD, with lower rates of Panic Disorder (Pole, Gone, & Kulkarni, 2008).



Multicultural and Gender Considerations

- Young and Johnson (2010) have indicated the how the changes in the DSM-5 draft with respect to PTSD are amenable to consideration of minority, cultural, racial, and ethnic factors.
- However, they concluded that there is much work to be done in this regard not only for PTSD but also for the DSM, in general.



DSM 5

- One can even ask whether the major categories of psychological/ psychiatric injury are valid entities and should be included in the DSM.

For example, some argue that:

- (a) Pain disorder should not be in the DSM because pain is more physiological than psychological (e.g., Melzack & Katz, 2006)



DSM 5

- (b) PTSD is a category that is over-diagnosed for court purposes and should not even be in the DSM (e.g., McNally, 2003); and
- (c) Mild TBI cannot lead to persistent postconcussive syndrome with pathophysiological underpinnings because the mild TBI typically resolves early after onset (e.g., McCrea, 2008).



DSM 5

- Some of the changes that might be taking place in the DSM-V might have a major impact on forensic and disability testing, assessment, and practice.
- As for pain disorder, the working group involved will be making it an optional specifier of a somatoform disorder, if plans are adopted (complex somatic symptom disorder, pain disorder).



Recommendations for *Psychological Injury and Law*

Integrated Field

- The field of psychological/ psychiatric injury and law is composed of about 10 major areas, and each of them requires both leading-edge work by researchers and state-of-art knowledge by practitioners.



Recommendations for *Psychological Injury and Law*

Integrated Study

- Leaders in the field should encourage educators of graduate students interested in this area of psychology to acquire the needed expertise before they graduate, preferably in dedicated programs.



Recommendations for *Psychological Injury and Law*

Integrated Research

- In the end, the best way of dealing with the divide is to have researchers conduct impeccable, middle-of-the-road research that lets the chips fall where they might on controversial issues, for example, as exemplified by the approach taken in PIL.



Recommendations for *Psychological Injury and Law*

Integrated Practice

- State and provincial regulatory boards, along with other regulatory boards, should be encouraged to specify qualifications needed to practice in the area, and seek to certify practitioners as competent in the area.



Recommendations for *Psychological Injury and Law*

Integrated Assessment

- Psychologists who assess individuals for effects of events at claim, such as in tort action or workers compensation, should be conducting comprehensive, impartial, and scientifically-informed assessments.



Recommendations for *Psychological Injury and Law*

Integrated Assessment

- It is recommended that leaders in the field encourage psychological test companies to promote positive practices in test construction and usage in the areas of psychological injury and to support research on standardization of relevant instruments on populations involved in psychological injury.



Recommendations for *Psychological Injury and Law*

Integrated Treatment

- Clients who have sustained psychological injuries usually have physical and psychological symptoms acting in concert, complicating treatment. They express symptoms of polytrauma.



Recommendations for *Psychological Injury and Law*

Integrated Model Building

- The area of psychological/ psychiatric injury and law needs to keep building integrated models, such as the combined biopsychosocial-forensic one that marks the present work.



Thank You!

**We look forward to the area
becoming a central one
in psychology.**



Appendix

Table 1

– “Biopsychosocial Model of Somatization”

– *Adopted from Young (2008b)*

- (a) Biological Factors
- (b) Psychological Factors
- (c) Ecological Factors

Figure 1

– “The Psycho-Ecological Model of Legal Causality”

– *Adopted from Young (2010)*



Biopsychosocial Model of Somatization: Biological Factors

- Table 1a
- Adopted from Young (2008b)

Type of Influence	Specific Factors
Innate or Early	
General	Genetic; Congenital
Specific	Sex/Gender; Age
Medical	
Medical, Personal History	Acute, <u>phasic</u> ; Chronic, tonic
Medical, Family History	Modeling of illness behavior, dependence; Modeling of disability, compensation
Medical, Ongoing	Acute (e.g., virus); Active chronic, tonic
Sensorial Effects	
Sensitization	Peripheral; Central
Sensation	<u>Proprioceptive</u> ; Kinesthetic
Secondary Effects	
<u>Neurovegetative</u>	Sleep problems; Nutrition
Stress Factors	Autonomic, HPA axis, <u>cortisol</u> ; Immune system dysfunction
Neurobiological	
Neuronal	Circuitry; Connectivity
Neurological	Cortical; Limbic, lower
Lobes, Regions	Frontal, etc.; <u>Amygdala</u> , etc.
Systemic	
Functional	Plasticity; Inhibition, activation



Biopsychosocial Model of Somatization: Psychological Factors

- Table 1b
- Adopted from Young (2008b)

Type of Influence	Specific Factors
Basic Psychological Processes	
Arousal	CNS excitability; Hypersensitivity
Perceptual	Lowered perceptual threshold; Faulty signal sensitivity, filtering
Attention, Concentration	Symptom vigilance
Learning	Classical. Operant
Cognition	
Cognitive, Basic	Memory, Expectation
Cognitive, Amplification	Symptom exaggeration; <u>Catastrophizing</u>
Cognitive, Advanced	Somatic attribution; Disease conviction
Cognitive, Executive	Organization, persistence; Systemic, pervasive
Cognitive, Medical	Disbelieve negative results; Believe doctors/systems do not listen
Cognitive, Networks	Schemas; Narratives
Affect	
Emotional, Internalizing	Depression; Anxiety
Emotional, Other	Fear of symptoms; Anger (e.g., at the system)
Mood	General distress; Demoralization

Behavior	
Behavioral, Passivity	Avoidance; <u>Deconditioning</u>
Behavioral, Activity	No distraction; No tasks
Behavioral, Dependence	Illness behavior; Helplessness
Behavioral, Dominance	Need reassurance; Doctor shopping
Coping and Resilience	
Coping	Emotional, dependent; Fight or flight, withdrawal
Resilience	Vulnerable, threat sensitivity; Diatheses, distress intolerance
Self Factors	
Self-Regulation	Affective; Cognitive
Image	Body; Self
Personality, Risk, and Psychopathology	
Personality	Neuroticism; Negative affectivity
Psychiatric Disorder	Clinical disorder; Personality disorder
At Risk Behavior	Addictions, dependence; Legal, police



Biopsychosocial Model of Somatization: Ecological Factors

- Table 1c
- Adopted from Young (2008b)

Type of Influence	Specific Factors
Social	
Historical	Trauma, stresses, adversity, conflicts; Losses (parental, supports, resources)
Parental attachment style	Preoccupied; Dismissing
Role Strain/Stress	School, work; Family, care giving
Interpersonal Conflict	Familial, relational, peers; Work, community
Inadequate Support	Social, familial; Professional
Overly Solicitous Support	Social, familial; Professional
Cultural	
Socioeconomic Status	Poverty, job loss; Community, neighborhood
Attitudes in Culture	Emotional control; Sanction physical symptom expression
Contextual	
Medical	Diagnostic uncertainty; Lack of explanation, guidance
Treating professionals	Skepticism; Provider profits from treatment
Disability Role	Expect benefits, compensation; Avoid unpleasant roles, responsibilities
Insurance	Contest benefits; Arrange repeated insurance examinations
Social-cultural/Political-economic	Pharmaceutical marketing; Public health service cutbacks



The Psycho-Ecological Model of Legal Causality

- Figure 1
- Adopted from Young (2010)



The Psycho-Ecological Model of Legal Causality

Figure 1

- The figure indicates the layers of influence that determine definition and tests of causality and causation in cases involving either individual or mass action torts.



The Psycho-Ecological Model of Legal Causality

Figure 1

- The first inner circle concerns immediate influence of the court system, such as the adversarial divide.
- Is the scientific evidence presented by the expert sufficiently reliable and valid to meet admissibility standards of good compared to poor or junk science, as per *Daubert* (1993), in particular?



The Psycho-Ecological Model of Legal Causality

Figure 1

- The second inner circle presents factors that can adversely impact good science, such as conflicts of interest and litigation science.
- The outer circle examines wider factors related to society, politics, industry, and so on.



The Psycho-Ecological Model of Legal Causality

Figure 1

- The model attempts to present an integrated model of causality that addresses process (e.g., good law) and product (e.g., good psychological evaluation).



The Psycho-Ecological Model of Legal Causality

Figure 1

- It is labeled “psycho-ecological” to emphasize the role of context in constructing law and the role of psychological factors in all major actors and agents involved, from the individual complainant to the professionals involved to institutions such as the insurance industry.

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