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Identifying and treating psychological factors in medical settings: The example of borderline personality disorder

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ABSTRACT. Research shows that a large number of medical presentations do not result in a medical diagnosis but rather are at least partially driven by psychological problems such as: depression, anxiety, substance abuse, and personality disorders. There has been considerable recent focus on the roles of psychological problems such as depression, anxiety, and substance abuse in patient presentations with relatively less focus on the roles of personality disorders such as borderline personality disorder (BPD). The purpose of this article is to present a model that specifies how BPD can impact patient presentations in medical settings. Included in this model are two pathways-the primary and secondary. The primary pathway illustrates how the primary diagnostic features of BPD (*e.g*., self-injury) can impact patient presentations, while the secondary pathway presents how some of the many associated features of BPD (*e.g*., treatment nonadherence) related to the primary diagnostic features can impact patient presentations. This model demonstrates that BPD can impact patient presentations through pathways that may not be immediately evident to primary care healthcare providers, thus, suggesting the benefits of a system of healthcare delivery in which behavioral healthcare is integrated into primary care medicine. This paper concludes with assessment and treatment recommendations for treating BPD in primary care medicine.

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KEYWORDS. Patient presentations. Borderline personality disorder. Healthcare utilization. Integrated care. Theoretical study.

RESUMEN. La investigación muestra que un amplio número de demandas sanitarias no derivan en un diagnóstico médico sino que, más bien, son en parte producidas por problemas psicológicos como depresión, ansiedad, abuso de sustancias y trastornos de personalidad. Recientemente, se ha prestado considerable atención al rol que desempeñan problemas psicológicos como la depresión, ansiedad y abuso de sustancias en las demandas del paciente, mientras que los trastornos de personalidad, como el trastorno límite, han despertado menor interés. El objetivo de este artículo es presentar un modelo que especifica cómo el trastorno límite puede afectar a las demandas del paciente en el ámbito médico. Dos rutas, la primaria y la secundaria, se incluyen en este modelo. La primaria ilustra cómo las características diagnósticas primarias del trastorno límite (*e.g.*, auto-lesión) pueden afectar a las demandas del paciente, mientras la secundaria ilustra cómo buena parte de las características del trastorno límite (*e.g.*, escasa adherencia al tratamiento) relacionadas con sus características diagnósticas primarias pueden afectar a las demandas del paciente. Este modelo revela que el trastorno límite puede tener impacto en las demandas del paciente a través de rutas que pueden pasar inadvertidas para los asistentes de atención primaria, sugiriendo así los beneficios de facilitar un sistema sanitario en el cual la atención al comportamiento es integrada en el contexto médico de atención primaria. Este trabajo concluye con recomendaciones de evaluación y tratamiento para el trastorno límite en el contexto médico de atención primaria.

PALABRAS CLAVE. Demandas del paciente. Trastorno límite de personalidad. Utilización de los servicios sanitarios. Atención sanitaria integral. Estudio teórico.

RESUMO. A investigação mostra que um amplo número de pedidos de saúde não derivam num diagnóstico médico, mas antes, são em parte produzidos por problemas psicológicos como a depressão, ansiedade, abuso de substâncias e perturbações de personalidade. Recentemente, tem-se prestado considerável atenção ao papel que desempenham os problemas psicológicos como a depressão, ansiedade e abuso de substâncias nos pedidos do paciente, enquanto que as perturbações de personalidade, como a perturbação de estado limite, têm despertado menos interesse. O objectivo deste artigo é apresentar um modelo que especifica como a perturbação de personalidade de estado limite pode afectar os pedidos do paciente no âmbito médico. Incluem-se neste modelo, duas vias a primária e a secundária. A primária ilustra como as características diagnosticas primárias da perturbação de estado limite (*e.g.*, automutilação) podem afectar os pedidos do paciente, enquanto a segunda ilustra como boa parte das características da perturbação de estado limite (*e.g.*, escassa adesão ao tratamento) relacionadas com as suas características diagnósticas primárias podem afectar os pedidos do paciente. Este modelo revela que a perturbação de estado limite pode ter impacto nos pedidos do paciente através de vias que podem passar despercebidas para os profissionais de cuidados primários, sugerindo assim os benefícios de facilitar um sistema sanitário no qual a atenção ao comportamento é integrada no contexto medico de cuidados primários. Este trabalho conclui com recomendações de avaliação e tratamento para a perturbação de estado limite no contexto médico de cuidados primários.

PALAVRAS CHAVE. Pedidos do paciente. Perturbações de personalidade de estado limite. Utilização dos serviços sanitários. Atenção sanitária integral. Estudo teórico.

Introduction

Research shows that 20% of individuals consume as much as 88% of the total healthcare resources (Ash, Zhao, Ellis, and Kramer, 2001). Furthermore, this trend is increasing (Berk and Monheit, 2001) and contributing to our Nation's escalating healthcare costs. One recent study examined the healthcare utilization patterns of 2 Ω million insured individuals and found that in one year, the top 7% consumed over $5,000 in health care services; the top 3% over $10,000, and the top 1% over $25,000 (per individual) (Ash *et al*., 2001). These findings along with recent research that shows that between 60% and 70% of primary care medical visits results in no medical diagnosis (Melek, 2001; Nimnuan, Hotopf, and Wessely, 2001), suggest that psychological factors may help us better understand what "drives" some individuals to consume greater amounts of healthcare resources and more specifically why some individuals with a physical concern seek medical attention while other individuals with the same concerns do not.

There has been recent considerable focus on the roles of psychological problems such as depression (Niles, Mori, Lambert, and Wolf, 2005), anxiety (Hoenh-Saric, 2005), and substance use (Saitz, Horton, Larson, Winter, and Samet, 2005) in patient presentations. In contrast, there has been relatively less focus on exploring the pathways in which personality disorders can impact patient presentations. Individuals with personality disorders (PDs) such as borderline personality disorder (BPD) often present to medical settings, with one study reporting that as many as 28% of primary care patients categorized as "at risk" for a PD met DSM-III diagnostic criteria for BPD (Hueston, Mainous, and Schilling, 1996). Moreover, research shows that these individuals use high amounts of healthcare resources and can incur expensive treatment costs (Sansone, Sansone, and Wiederman, 1996; Sansone, Wiederman, and Sansone, 1998). Therefore, this article will use the example of borderline personality disorder to illustrate a model of how psychological factors can impact patient presentations. For the purpose of this article, the phrase "patient presentation" is used to refer to any psychological and/or physical characteristic (and/or complaint) an individual presents to a healthcare provider.

The primary focus of this theoretical study (Montero and León, 2005) is to present a model that illustrates two major pathways in which borderline personality disorder can influence patient presentations - the primary and secondary pathways. The primary pathway illustrates how the essential characteristics of BPD required for diagnosis by the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV; American Psychiatric Association, 1994) can lead to patient presentations. The secondary pathway presents how some of the many associated features of BPD such as comorbid psychological problems and physical complaints related to the primary diagnostic features can impact patient presentations. This article begins with a brief review of the literature regarding the relationship between psychological factors in general and patient presentations. This article concludes with a brief discussion of an integrative approach

to the assessment and treatment of psychological problems in medical settings with a special emphasis on BPD.

Psychological factors and patient presentations: A brief review of the literature

Many individuals present to medical settings because of the presence of physical symptoms. Perhaps the most common example is the individual experiencing uncomfortable or alarming physical complaints such as a headaches or severe sore throat. However, interestingly, these (and other) complaints are not always associated with an identifiable physical problem, which are otherwise known as "medically unexplained symptoms" (see Nimnuan *et al*., 2001). In one study, researchers interviewed 414 individuals not taking any medications and reporting no identifiable medical condition and found that as many as 41% reported fatigue, 27% reported problems concentrating, 15% reported headaches, 10% reported difficulty sleeping, 11% reported muscle pain, and 8% reported skin rash (Reidenberg and Lowenthal, 1968). Reidenberg and Lowenthal concluded from their results that physical symptoms are sometimes affected by "emotional" or psychological factors.

Similarly, a study published by the *New England Journal of Medicine* showed that back pain is not always related to identifiable physical abnormalities of the spine. Specifically, Jensen *et al*. (1994) investigated the relationship between abnormalities in the lumbar spine and the presence of back pain in 98 asymptomatic individuals and found that 64% of study participants had an intervertebral disk abnormality and 38% had an abnormality at more than one level. The authors concluded from the findings that the presence of abnormalities in the lumbar spine and the experience of lower back pain may be coincidental. These findings further suggest that factors other than physical abnormalities of the spine may play a role in the experience of lower back pain, *i.e*., psychological.

Interestingly, Berkanovic, Telesky, and Reeder (1981) found that the presence of physical symptoms alone plays a relatively small role in whether an individual presents to a medical setting. The results of their study showed that 12% of the variance of medical help seeking behavior could be accounted for by an identifiable medical cause. When psychosocial factors (*e.g*., social support) for seeking medical services were added to their regression model, as much as 57% of the variance in medical help seeking behavior was accounted for using the same sample of individuals.

Friedman, Sobel, Myers, Caudill, and Benson (1995) have suggested that a wide variety of psychosocial pathways can lead to increased medical help seeking. The following is a brief discussion of each pathway and how it can contribute to patient presentations.

- Information and decision support pathway. Some individuals are passive consumers of medical services and this "consumer style" can result in unnecessary medical visits. For example, individuals that lack information on how to self-manage chronic or "everyday" medical conditions (*e.g*., diabetes or common cold) that (when managed appropriately) do not necessarily require the attention of a healthcare professional, may seek unnecessary medical attention for these problems

when they might have been self-managed effectively with proper education and/ or access to health related informational resources (*e.g.*, WebMD).

- Psychophysiological pathway. Research has shown that stress can contribute to the development and maintenance of many chronic diseases such as diabetes (Lorig, Mazonson, and Holman, 1993), and can also make symptoms and complications of such conditions worse (Drummond, Finch, Skipworth, and Blockey, 2001) leading to increased medical service utilization.
- Behavior change pathway. An individual's lifestyle habits (*e.g.*, substance use and poor diet) can also contribute to the development of and ability to self-manage many chronic medical conditions, thus leading to high utilization of medical services.
- Social support pathway. It is common for individuals confronting medical problems to do so without sufficient social support. Many of these individuals seek medical services to not only gain access to a healthcare professional's expertise but also to access social support from their healthcare provider, thus leading to unnecessary medical services.
- Undiagnosed psychological problem pathway. Researchers have well documented that many individuals presenting with physical symptoms have undiagnosed psychological problems such as depression (Fava, 2003) either at diagnostic or subclinical levels. Failure to identify and effectively treat/manage these conditions can lead to increased medical utilization, as these conditions can exacerbate physical symptoms or interfere with treatment compliance.
- Somatization pathway. Individuals presenting with frequent undiagnosed bodily complaints may be suffering from significant emotional distress such as excessive worry and stress, and feelings of hopelessness (Cummings, 2004; Friedman, 2003). These individuals can consume high amounts of healthcare resources that result in expensive diagnostic and treatment procedures that fail to provide any relief from bodily and/or emotional distress.

It is important to note that the purpose of this section is not to suggest that psychological factors should be diagnosed by default when an individual presents to a medical setting with psychological and/or physical complaints that have no immediately identifiable physical etiology. Medical diagnosis is always evolving and may someday explain many of the psychological and physical symptoms that are now considered by many to have a psychological or emotional etiology. This section is, however, suggesting that psychological factors can contribute to medical help seeking behavior (Katon, 1986; Sansone *et al.*, 1996) and therefore it is becoming increasingly important that healthcare providers better understand the relationship between psychological factors and patient presentations for the purpose of identification and treatment.

A model illustrating how psychological factors can impact patient presentations

Many psychological problems remain unidentified and subsequently untreated in medical settings, which is partly due to some healthcare providers failing to recognize psychopathology in patient presentations (Hueston *et al.*, 1996). This is not to blame healthcare providers for failing to recognize psychological factors in medical settings,

but to point out that the roles of psychological factors and patient presentations are complex and thus warrant further clarification for the purpose of identification and treatment. Using the example of borderline personality disorder, the following sections attempt to elucidate some of the complexities involved in this relationship by presenting two pathways that illustrate how psychological factors can impact patient presentations. The primary presentation presents and discusses how the essential diagnostic features of BPD (those required for diagnosis by the DSM-IV) can impact patient presentations. The secondary presentation presents and discusses how associated features (such as comorbid psychological disorders and physical complaints) of the diagnostic characteristic of BPD can impact patient presentations.

What is borderline personality disorder (BPD)?

In general, personality disorders are characterized as a set of stable and inflexible behaviors and inner experiences that deviate from the expectations of one's culture, which leads to significant distress or impairment. The primary diagnostic features of BPD include: unstable relationships; sense of self, and mood; along with striking impulsivity in variety of life domains (*e.g.*, relationships, substance abuse, reckless driving suicidal, or parasuicidal behaviors) (see American Psychiatric Association, 1994; p. 650).

Why is BPD relevant to medical settings?

Personality disorders (PDs) are thought to occur in approximately 10% of the adult population; however, they are rarely diagnosed in medical settings. Instead, these patients are often labeled as "difficult" or "problem" and either dismissed or "fired' by healthcare providers. The fact that PDs are often unrecognized in medical settings has been attributed to the complexity of symptom presentation. For example, individuals with PDs can present with multiple comorbid psychological problems such as depression, complicating the diagnosis of a PD (Hueston *et al*., 1996).

Data show that individuals with PDs such as borderline personality disorder often present to primary care (Hueston *et al*., 1996). Furthermore, patients with BPD present to primary care more often than patients without BPD, and often fail to receive any mental health services (Sansone *et al*., 1996). Gross *et al*. (2002) found that approximately 50% of individuals presenting with symptoms of BPD had not received treatment in the past year, and 43% had not be recognized as having any emotional or mental health problems by their primary care physician. Clearly, individuals with BPD present to medical settings such as primary care and often fail to receive the appropriate diagnosis and treatment.

Primary pathway of BPD

Engaging in acts of self-harm is one of the defining features of the BPD diagnosis and can have serious negative consequences on the health of the individual. Furthermore, parasuicidal or self-mutilating acts are relatively common among persons with BPD and many engage in these acts purposefully. One study found that as many as 29% of individuals with BPD reported purposefully cutting themselves, 25% banged their head,

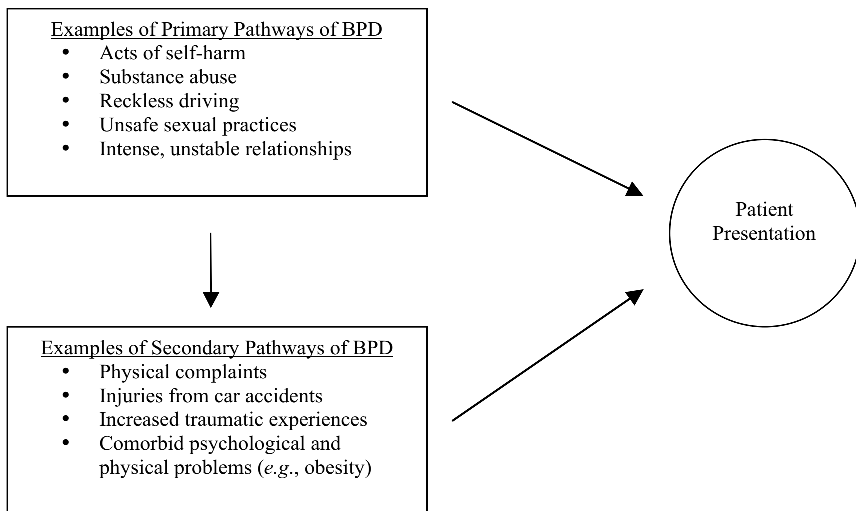
21% reported attempting to overdose on a lethal substance, 21% scratched, 17% hit themselves, and 9% burned themselves (Sansone, Weiderman, Sansone, and Monteith, 2000). Sansone *et al*. further investigated the prevalence of intentional self-abuse in individuals with BPD presenting to primary care and found that 83% abused alcohol; 63% had sexual encounters with many partners; 42% drove recklessly; 42% starved themselves; 29% abused prescription medication; 21% purposefully made medical conditions worse; 25% exercised an injury; and 4% of patients intentionally prevented wounds from healing.

An additional primary diagnostic feature of BPD is a pattern of intense, unstable relationships that can evolve from idealizing people to devaluing them. Specifically, patients with BPD may present to medical settings for the primary purpose of obtaining emotional support from a physician they momentarily idealize. However, as the diagnostic criteria suggests, these patients can quickly switch from idealizing to devaluing a relationship with a physician, and for this reason, some researchers have recommended that physicians avoid becoming interpersonally entangled with these patients (Sansone and Sansone, 1995), possibility out of the realistic concern of litigation.

Secondary pathway of BPD

The distinction between the primary and secondary diagnostic pathways is important because individuals with BPD may present to medical settings with symptoms or medical problems that are not immediately recognized as part of the primary diagnostic criteria. Specifically, individuals with BPD may not necessarily present to primary care as a result of self-injury but may present with secondary or associated features such as sexually transmitted diseases, injuries from car reckless driving, and substance use (see Figure 1) (American Psychiatric Association, 1994; p. 652). The secondary features of BPD can be divided into both physical and psychological complaints.

FIGURE 1. Primary and secondary pathways of BPD and their impact on patient presentations.



Physical complaints

Given the prevalence of intentional self-abuse in this population of individuals, it is not surprising that individuals with BPD can present to primary care with a wide variety of physical complaints such as severe headaches and migraines (Saper and Lake, 2002), abdominal pain, cold hands, nausea, vomiting, and diarrhea (BPD Sanctuary, 2004). Furthermore, research has shown that headaches are more common in persons with BPD than in the general population. Interestingly, Johnson (1993) found that individuals presenting to primary care with BPD are less likely to present with wrist-slashing and self-mutilation (when compared to individuals presenting to a psychiatric settings) and instead are more likely to present with what he calls the "primary care analogue" or nausea and vomiting. Johnson also argues that it is important for healthcare providers to be aware of these secondary features given they are less likely to indicate psychopathology.

Individuals with BPD can also present to medical settings with physical complaints related to difficulties managing chronic disease conditions such as HIV or AIDS. Palmer, Salcedo, Miller, Winiarski, and Arno (2003) studied a sample of patients with HIV and found that individuals that met diagnostic criteria for BPD were significantly more likely to have problems adhering to their HIV medication regimen, suggesting an increased likelihood of future health problems.

Psychological complaints

Other primary diagnostic features such as poor self-image and impulse control are related to secondary features such as increased body weight, body dissatisfaction, and feelings of unattractiveness (Sansone, Weiderman, and Monteith, 2001). These factors may partially account for why some individuals with BPD report high rates of sexual abuse and other traumatic experiences. Sansone *et al*. (1998) examined a sample of female individuals with BPD presenting to primary care and found that 44% reported witnessing at least one violent act, 40% some form of emotional abuse, 23% reported sexual abuse, and 10% reported physical neglect. Furthermore, in one sample, as many as 79% and 38% of primary care patients with BPD reported engaging in emotionally and sexually abusive relationships, respectively (Weidermon Sansone, *et al*., 2000). Individuals with BPD who report experiencing some type of traumatic experience have also been shown to use an increased amount of medical services (Sansone, Weiderman, and Sansone, 2000) possibly because of high rates of associated sleep difficulties, anxiety and depressive disorders, irritability, and difficulties concentrating (American Psychiatric Association, 1994).

Individuals with BPD present to primary care with a wide variety of comorbid psychological problems. Gross *et al*. (2002) studied the prevalence of comorbid psychological problems in an urban primary care sample and found that 57% reported symptoms of an anxiety disorder, 36% reported symptoms of major depression, and 21% of BPD patients reported symptoms of bipolar disorder. Moriya, Miyake, Minakawa, Ikuta, and Nishizono-Maher (1993) found a high prevalence of affective disorders (63%), eating disorders (34%), and substance use disorders (22%) in a sample of female patients diagnosed with BPD. Other common comorbid problems include post-

traumatic stress disorder and attention-deficit and hyperactivity-disorder (American Psychiatric Association, 1994; p. 652).

Not surprisingly, BPD patients with comorbid physical and psychological problems are at risk for increased psychological distress (Zanarini, Gunderson, and Frankenburg, 1989). Abela, Payne, and Moussaly (2003) found that BPD patients with comorbid depression displayed an increase in both symptoms of depression and cognitive vulnerability to depression when compared to a group of non BPD controls. Research also shows that individuals with BPD are likely to present with personality disorders. One study found that 53% of individuals with BPD also met DSM-III diagnostic criteria for obsessive-compulsive, 28% paranoid, 26% avoidant, 25% schizotypal, 24% narcissistic, and 22% antisocial personality disorder (Hueston *et al.*, 1996).

An integrative approach to identifying and treating psychological problems in medical settings

The pathways above illustrate some of the ways in which psychological problems such as BPD can impact patient presentations. Given that individuals presenting with psychological problems such as BPD can present to medical settings with symptoms not immediately identified as psychopathology, healthcare providers can benefit from functioning in a system of care in which behavioral health is integrated into primary care medicine. Nicholas Cummings and his colleagues (Cummings, Cummings, and Johnson, 1997; Cummings, O'Donohue, and Ferguson, 2003) have further suggested that the current fractionated system results in unnecessary expense and either treats the body or the mind but does not treat both in any one setting. Many patients seem to prefer treatment in the medical setting but present with psychological problems such as borderline personality disorder and comorbid depression that some argue (Cummings *et al.*, 1997; Cummings *et al.*, 2003) the medical setting is not ideally suited to treat.

The following sections present an integrative approach to the assessment and treatment of BPD and depression in medical settings. The example of depression is provided in addition to BPD because it is perhaps the most common psychological problem presented to medical healthcare providers, with some estimates of its occurrence in medical settings ranging as high as 20% (Salokangas, Poutanen, Stengard, and Jahi, 1996); and furthermore, research shows that individuals with BPD present with high rates of comorbid depression (Pinto, Dhavale, Nair, Patil, and Dewan, 2000).

Identification of psychological problems in medical settings

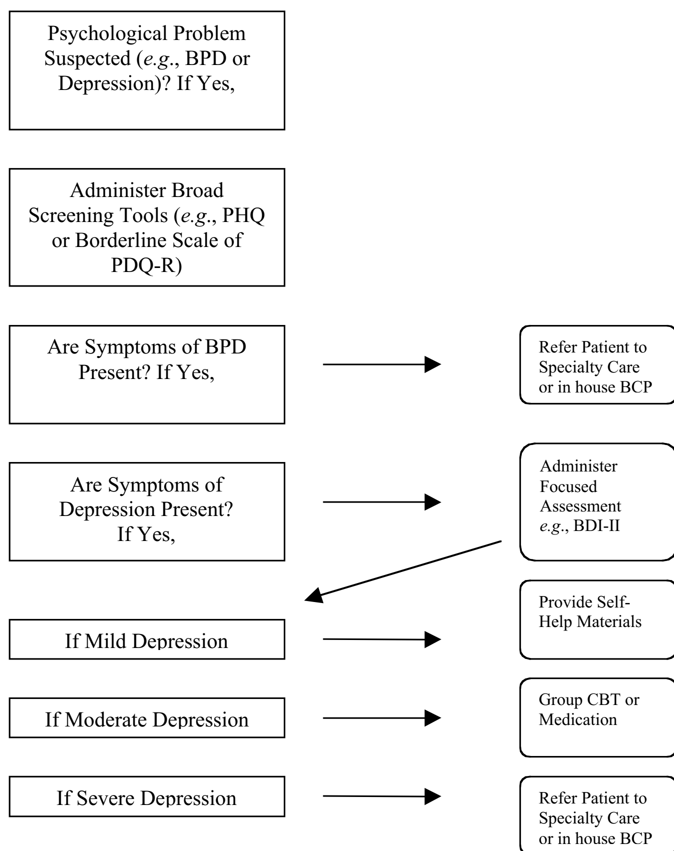
One of the advantages of working within an integrated system of care includes the presence of behavioral care providers or BCPs who can administer and score assessment procedures, and conduct follow-up assessments to help identify psychological problems in patient presentations. Broad assessment instruments can be administered to help identify the possible presence of a psychological problem; while more focused assessments can be used to gather additional information such as symptom severity and treatment effectiveness.

Broad assessment instruments. BCPs can administer broad assessment tools such the Patient Health Questionnaire (PHQ) (a brief self-report version of the Primary Care

Evaluation of Mental Disorders or PRIME-MD) to assess psychological problems such as mood, anxiety, alcohol, somatoform, and eating disorders (Spitzer, Kroenke, and Williams, 1999). The PHQ is filled out by the patient and then scored and reviewed by healthcare providers. The PHQ takes most healthcare providers less than three minutes to review.

Focused assessment instruments. BCPs can be present to conduct brief follow-up inventories and/ or conduct brief interviews to gather additional information from patients who display symptoms or other behavioral correlates of specific psychological problems. For example, research shows that 13% of individuals presenting to primary care meet diagnostic criteria for depression, with this being likely an underestimate given that depression often goes undetected in medical settings (Coyne, Thompson, Klinkman, and Nease Jr, 2002). When an individual is suspected of being depressed, the Beck Depression Inventory-II (BDI-II; Beck, Brown, and Steer, 1996) could be administered (see Figure 2). The BDI-II consists of 21 items that assess symptom severity of depression

FIGURE 2. Operation flow chart for identifying and treating borderline personality disorder and depression in medical settings.



with raw scores ranging from 0-63 (with 0-13 indicating minimal, 14-19 mild, 20-28 moderate, and 29-63 severe depression). The BDI-II takes individuals roughly 5-10 minutes to complete and can be given to individuals as they check in (or out) for their visits and filled out in the waiting room. Furthermore, BCPs can be available to score and interpret the BDI-II and also place it on top of patients' medical charts for healthcare providers to review. BCPs can also ask patients quick yes or no questions to obtain further information about a suspected psychological problem such as: a) Have you been feeling depressed or sad over the last two weeks? b) Have you had any problems sleeping lately? c) Have you had thoughts of hurting or killing yourself lately? and d) Have you missed work, important appointments or events over the last two weeks due to feelings of depression?

BPD can also be identified in patient presentations. The Borderline Personality Scale of the Personality Diagnostic Questionnaire Revised (PDQ-R) is an 18 item self-report questionnaire that can be administered to assess symptoms of BPD. The questions used in the PDQ-R are based on the diagnostic criteria for BPD in the DSM-III-Revised (Hyler and Reider, 1987). The Self-Harm Inventory (SHI) is an additional measure that can be administered to individuals suspected of engaging in self-harm behaviors (Sansone *et al*., 1996). The SHI consists of 22 self-report items that assess self-destructive behaviors, *e.g*., "Have you ever intentionally cut yourself". The SHI has been shown to be highly correlated with the diagnosis of BPD (Sansone *et al*., 1996). There is also a wide variety of assessment tools for BPD made available by Dr. Marsha Linehan and her colleagues at the University of Washington (see her website http://www.brtc.psych.washington.edu/framePublications.htm).

The advantage of obtaining focused information as described above is that healthcare providers are in a better position to judge the role of psychological factors in a patient's presentation and to develop and implement a treatment plan (or recommend referral to specialty care).

Treatment of psychological problems in medical settings

Once psychological problems are suspected, treatment can be delivered along a continuum of care from least to most intensive (also known as the stepped-care model of treatment delivery) (Cummings *et al*., 1997).

First level care can include health oriented web sites such as WebMD.com or HealthFinder.org. Patients can be referred to these websites for basic facts, symptoms, and treatment options regarding various psychological problems. There are also numerous self-help materials that can be either given or recommended to patients that display mild symptoms of psychological problems such as depression. David Burns's book, *Feeling good: The new mood therapy* (1999), has proven to be a popular (over 3 million copies sold) and effective treatment option for many depressed individuals (Floyd, Scogin, McKendree-Smith, Floyd, and Rokke, 2004). Research shows that individuals who read Burns' book display a reduction in symptoms of depression in as little as four weeks, which are maintained at three years follow-up (Jamison and Scogin, 1995). Also, Burns' book has been shown in some cases to be as effective as individual psychotherapy in reducing depression (Smith, Floyd, Scogin, and Jamison, 1997) and

is inexpensive and can be quickly purchased or handed to patients while in the exam or waiting room.

Second level care interventions such as medication or group cognitive behavioral therapy (CBT) can be provided to patients to effectively treat symptoms of moderate depression or who fail to respond to first level care (Dew *et al*., 2001; Gallagher-Thompson *et al*., 2003).

Third level care such as referral to a specialty mental health provider should be recommended to patients that display more severe psychological problems such as severe depression and BPD since these psychological problems often require a more thorough diagnostic work-up to treat effectively. For example, individuals presenting with primary or secondary features of BPD should be referred to an in house BCP or specialty care provider who can administer more lengthy treatments such as dialectical behavioral therapy (Ben-Porath, Peterson, and Smee, 2004; Linehan, 1993).

Summary and implications for medical practice

Research has consistently shown that psychological factors are related to patient presentations. However, models that illustrate the specifics of this association have not been developed. The purpose of this article was to elucidate some of the specifics of this association by presenting a model that illustrates some of the pathways by which psychological factors impact patient presentations. BPD was used to illustrate this model. Specifically, two pathways were presented, the primary and secondary. The primary pathway illustrates how the primary or essential characteristics of BPD required for diagnosis by the DSM-IV can lead to patient presentations. The secondary pathway presents how some of the many associated features of BPD such as comorbid psychological disorders and physical complaints related to the primary diagnostic features can impact patient presentations.

Research has shown that psychological problems often remain undiagnosed and untreated in medical settings. This results in patients failing to receive effective treatments to ameliorate suffering. Thus, healthcare providers can benefit from functioning in a system in which behavioral care is integrated into primary care practice. In such a system, BCPs can be present to help healthcare providers identify and treat psychological problems. BCPs can administer assessment and follow-up inventories that provide information (*e.g*., substance use or purposeful self-injury) that help healthcare providers reason from presenting complaints to causal underlying psychological problems. For example, patient presentations that include intentional self-harm and multiple injuries may be driven by BPD, and thus need to be recognized and treated as opposed to simply treating the presenting symptoms individually. Also, in the secondary pathway, the more indirect signs of underlying psychological problems need to be recognized. For example, problems with weight, treatment nonadherence, injuries from vehicle accidents, sexually transmitted diseases, although not diagnostic criteria for BPD, are key associated features and again, need to be recognized as such for treatment purposes.

As a gatekeeper to specialty care we are not suggesting that primary care health providers need to be competent in a full armamentarium of psychological and psychiatric

assessment procedures. However, given the prevalence of psychological problems in patient presentations, healthcare providers can benefit from a) being familiar with efficient screening procedures that can provide additional information about some of the more high prevalence psychological problems, b) having some knowledge about DSM-IV diagnostic criteria associated with these problems in order to ask diagnostic questions or to identify patients that might benefit from a more comprehensive diagnostic work-up, and c) being aware of information-based resources (*e.g*., healthcare websites) and quick, useful intervention materials (*e.g*., bibliotherapy).

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