Clinical Psychology Review 33 (2013) 1134–1147

Contents lists available at ScienceDirect

Clinical Psychology Review

Mechanisms of change in interpersonal therapy (IPT)

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HIGHLIGHTS

- Interpersonal therapy (IPT) is informed by relational theory and research on stressors and social support.
- IPT sees psychiatric disorders as precipitated and maintained by crises or predicaments in the interpersonal context.
- Resolving a central interpersonal problem in IPT is thought to activate four interpersonal change mechanisms.
- Resolving the problem a) enhances social support and b) reduces interpersonal stress.
- Facilitating this change entails c) processing of emotions and d) improving interpersonal skills.

ARTICLE INFO

Article history:
Received 30 December 2012
Received in revised form 3 September 2013
Accepted 17 September 2013
Available online 25 September 2013

Keywords:
Interpersonal therapy
IPT
Psychotherapy
Interpersonal
Mechanisms
Mediators

ABSTRACT

Although interpersonal therapy (IPT) has demonstrated efficacy for mood and other disorders, little is known about how IPT works. We present interpersonal change mechanisms that we hypothesize account for symptom change in IPT. Integrating relational theory and insights based on research findings regarding stress, social support, and illness, IPT highlights contextual factors thought to precipitate and maintain psychiatric disorders. It frames therapy around a central interpersonal problem in the patient's life, a current crisis or relational predicament that is disrupting social support and increasing interpersonal stress. By mobilizing and working collaboratively with the patient to resolve this problem, IPT seeks to activate several interpersonal change mechanisms. These include: 1) enhancing social support, 2) decreasing interpersonal stress, 3) facilitating emotional processing, and 4) improving interpersonal skills. We hope that articulating these mechanisms will help therapists to formulate cases and better maintain focus within an IPT framework. Here we propose interpersonal mechanisms that might explain how IPT's interpersonal focus leads to symptom change. Future work needs to specify and test candidate mediators in clinical trials. We anticipate that pursuing this more systematic strategy will lead to important refinements and improvements in IPT and enhance its application in a range of clinical populations.

Contents

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0272-7358/$ – see front matter
http://dx.doi.org/10.1016/j.cpr.2013.09.002

1. Mechanisms of change in interpersonal therapy

Considering interpersonal therapy's (IPT's) extensive evidence base in outcome research (Cuijpers, 2011; Weissman, Markowitz, & Klerman, 2000), researchers have devoted surprisingly little effort to explaining mechanisms of change in IPT. We know that IPT works well for some disorders, but little about why and how. Two factors probably explain this neglect. The first is IPT's pragmatic ethos: IPT practitioners and researchers have been more concerned with how much patients benefit than the clarity of its theoretical model. Its co-architect, Gerald L. Klerman, famously emphasized outcome over process: "If a treatment doesn't help, who cares how it works?" (Markowitz, Skodol, & Bleiberg, 2006). Accordingly, IPT research has focused primarily on efficacy, secondarily on potential moderating factors, but very little on mediating factors. The second factor is IPT's integrative view of therapeutic change. From its inception (Klerman, Weissman, Rounsaville, & Chevron, 1984), IPT has emphasized a multifaceted approach, drawing on an array of complementary and interdependent, specific and common change factors. Its advocates may have therefore questioned the value of defining IPT by one or a few specific change mechanisms.

Much has changed in the past four decades, however. Practitioners and researchers both within and outside IPT have increasingly sought explication of specific processes of change. It has been suggested that lack of an elaboration of its conceptual approach might impede IPT's broader dissemination, as some practitioners may not understand what distinguishes IPT from other approaches (Stuart, Robertson, & Ohara, 2006). Indeed, the importance of understanding how a psychotherapy works surpasses simple intellectual curiosity. Kazdin (2007) outlines several clinically pertinent reasons to study psychotherapy change mechanisms. These include elucidating connections between what happens in therapy and broader treatment effects, optimizing therapeutic change through emphasizing active elements, facilitating thoughtful adaptations of the therapy to real world settings, and identifying theory-relevant moderating factors that permit optimal patient-treatment matching. Understanding change mechanisms and identifying active ingredients in IPT could lead to enhancements through emphasizing and perhaps extending active features while de-emphasizing or removing less potent components.

This paper aims to explain IPT's unique interpersonal focus and the hypothesized *specific* processes through which its interpersonal work might reduce symptoms of psychiatric disorders.[1] We present these interpersonal change processes in detail to clarify the underpinnings of IPT's approach and to help better distinguish IPT from other therapies. We focus on four hypothesized change mechanisms: 1) enhancing social support, 2) decreasing interpersonal stress, 3) facilitating emotional processing, and 4) improving interpersonal skills. *Although we use the term specific, we don't consider these change mechanisms unique to IPT. IPT's uniqueness lies in its activating all of these mechanisms within a pragmatic, coherent, and affectively charged focus on a central interpersonal problem (a crisis or predicament) in the patient's life.* First, we briefly describe IPT. Then, to provide a clearer foundation for the proposed mechanisms, we describe IPT's theoretical model in some detail. We then describe the precise role of the *interpersonal problem* focus within IPT and explain how this framework might activate interpersonal change mechanisms. We then present the four interpersonal mechanisms that we hypothesize to account for clinical change in IPT.

2. Description of IPT

IPT is a time-limited psychotherapy initially developed to treat major depression (Klerman et al., 1984) and subsequently adapted and studied for treatment of bipolar disorder (Frank et al., 2005), dysthymic disorder (Markowitz, 1996), bulimia nervosa (Fairburn, Jones, Peveler, Hope, & O'Connor, 1993), binge eating disorder (Wilfley et al., 2002), social anxiety disorder (Lipsitz, Markowitz, Cherry, & Fyer, 1999), panic disorder (Lipsitz et al., 2006), and posttraumatic stress disorder (Bleiberg & Markowitz, 2005), among other disorders. IPT has

[1] We use the term *psychiatric* rather than psychological disorder because IPT's integrative theory incorporates the medical model of diagnosis and utilizes psychiatric nosology. No implication is intended of primacy of the contributions of one mental health discipline over another.

been adapted and studied to treat depression in adolescents (Mufson, Weissman, Moreau, & Garfinkel, 1999), the elderly (Reynolds et al., 1999), and special populations including depressed HIV-positive patients (Markowitz et al., 1998) and patients with mild cognitive impairment (Carreira et al., 2008). Typically administered individually, IPT has been used in group (Wilfley et al., 2002), conjoint (Carter, Grigoriadis, Ravitz, & Ross, 2010), and telephone-administered formats. Its standard approach uses 12–16 weekly sessions to acutely treat a syndrome. Monthly maintenance IPT treatment has demonstrated efficacy in preventing recurrence of major depression (Frank et al., 2007; Kupfer et al., 1992).

The patient and IPT therapist together define a central *interpersonal problem* – a current crisis or predicament – that serves as the primary treatment focus. The *interpersonal problem* falls into one of four categories: *grief* – a complicated bereavement reaction following the death of a loved one along with difficulty reestablishing satisfying interpersonal ties in the absence of the deceased; *role transition* – an unsettling major life change (e.g., illness, birth of a child, retirement); *role dispute* – a conflict, overt or covert, in an important relationship (e.g., with spouse, parent, boss); or *interpersonal deficits* – social isolation. The category *Interpersonal deficits* is typically chosen when a problem in one of the first three categories cannot be identified.

IPT has three phases. The initial phase (typically sessions 1–3) includes: a) evaluation – diagnosing the syndrome and any comorbid conditions and conducting the interpersonal inventory – a thorough review of current and past relationships; b) providing the case formulation, which defines the target diagnosis within the medical model, providing the patient with the transitional *sick role* — intended to alleviate responsibility for current difficulties (Parsons, 1951), and linking the diagnosis to a focal *interpersonal problem*; and c) agreeing on the treatment plan. The formulation (Markowitz & Swartz, 2006) provides the interpersonal problem focus through which the proposed change mechanisms are activated. The middle phase (sessions 4–9/13) comprises the main work of *resolving* the interpersonal problem with the expected result of reducing symptoms. The final phase (final three sessions) involves direct discussion of termination, reviewing improvement, consolidating gains, and anticipating future problems.

2.1. Specific factors within an integrative therapy

Although the goal of this report is to conceptualize *specific* change processes related to IPT's unique interpersonal focus, IPT is an inherently integrative therapy. Klerman et al. (1984) devised IPT to optimize and leverage an array of change factors, including "common factors" of psychotherapy (Frank & Frank, 1991). IPT explicitly endeavors to instill hope and enhance expectation for change (Frank, 1971). Through use of the *medical model*, IPT seeks to create a new narrative for the patient, demystifying and externalizing the current problem as something the patient *has* rather than a defining aspect of who s/he is. Through use of the *sick role*, IPT seeks to decrease demoralization and guilt due to past social failures and the burden of current expectations, increase motivation for change (as it is the *role* of the patient to now get well), and emphatically validate the patient's current distress. IPT explicitly values and builds on the supportive role of the therapeutic relationship. Common factors such as these account for much of psychotherapy's benefits (Norcross & Wampold, 2011). Indeed, much of the power of IPT's punch may come from how it incorporates and optimizes common therapy factors (Markowitz & Milrod, 2011).

Without wishing to downplay the importance of other change factors such as those listed above, we feel it is imperative at this stage to better articulate change factors that characterize IPT's unique interpersonal focus and to present their *specific* constellation and emphasis within IPT. We refer to these interpersonal change factors as *specific* because they operate within the unique framework of the *interpersonal problem* area and effects are hypothesized based on IPT's interpersonal theory. However, the distinction between common and specific factors is not always clear (e.g., Butler & Strupp, 1986); common factors may facilitate specific ones and, conversely, the effect of specific factors (e.g., change in an interpersonal problem) may actually be mediated by common factors (e.g., success experience, mastery). When describing specific factors below, we will provide examples of how other aspects of IPT's integrative approach (e.g., the medical model) might support and facilitate their effects.

2.2. A trans-diagnostic therapy

One final point is vital when considering IPT change mechanisms across syndromes. Although diagnosis-specific in its psychoeducational content and implementation of certain specific strategies, IPT's primary interpersonal thrust and focal strategies are inherently *trans-diagnostic*. IPT targets the interpersonal context in which the disorder occurs rather than the symptoms, thoughts, and behaviors associated with each particular disorder. Therefore, its therapeutic stance, structure, and interpersonal problem areas remain relatively consistent across diagnoses. We propose that the interpersonal change mechanisms below are relevant to all disorders IPT addresses. Relative salience of these mechanisms may differ across disorders; we note below where theory or clinical research has suggested such differences.

3. IPT's interpersonal model

IPT's theoretical model is presented in the original IPT manual (Klerman et al., 1984) and in subsequent updating (Weissman et al., 2000) and adaptations. As explained below, IPT utilizes a *diathesis-stress* model of psychiatric illness and integrates two interpersonal frameworks: relational theory, which provides the basis for connecting relationships with mental health; and research on stress, social support, and illness, which informs IPT's specific focus on current interpersonal problems.

3.1. Relational theory

3.1.1. The interpersonal theory of Harry Stack Sullivan[2]

Influenced by the integrative psychobiological theory of Adolph Meyer (Meyer & Winters, 1951), Sullivan asserted that: "The field of psychiatry is the field of interpersonal relations; a person can never be isolated from the complex of interpersonal relations in which the person lives and has his being" (Sullivan, 1940, p. 10). Breaking with Freudian drive theory, Sullivan insisted that interpersonal relationships constituted a basic human need and that mental health depended on healthy, intimate connections with other people. In addition to drive-related needs for satisfaction, Sullivan described "security needs", which operate in the anxiety-arousing interpersonal arena. Influenced by anthropology and social psychology, Sullivan proposed that the self is shaped by "reflected appraisals" in the form of expectations and reactions of others (Sullivan, 1953). Although he considered close, intimate relationships the most crucial social context, Sullivan recognized the importance of wider social contexts (e.g., peer group, school) in determining mental health. Carrying his relational view to its logical conclusion, Sullivan considered the therapist a "participant-observer" (Sullivan, 1954) who necessarily interacted with the patient in a human way, but who also could assume the expert role to help enlighten the patient. Sullivan rejected the therapeutic passivity used to facilitate free association in psychoanalysis. Interested in real events and real interactions, in addition to unconscious processes, he advocated use of direct inquiry (Sullivan, 1954).

[2] Given limited space for background on relational theory, we highlight two pivotal figures, Harry S. Sullivan and John Bowlby, and overlook many key figures of interpersonal psychoanalytic and object relational streams (see Greenberg & Mitchell, 1983) as well as more current relational work.

3.1.2. Attachment theory

If Sullivan's clinical wisdom and integration of social science helped shift psychotherapy toward a more relational view, the elegance and breadth of John Bowlby's attachment theory (1969) solidified this shift and catapulted relational theory to prominence in abnormal, developmental, and social psychology. Bowlby saw human attachment as a complex, biologically determined system designed to keep the caregiver in safe proximity. He observed that youngsters seek parents as a safe haven in times of distress and proposed that this attachment provides a "secure base" from which to launch independent, goal-oriented behavior. Although attachment has its most vital survival function during infancy, it remains essential throughout life in providing individuals with warmth and nurturance, especially under conditions of stress (Bowlby, 1977). According to Bowlby, secure attachment to the caregiver early in life forms the foundation for later success in interpersonal relationships (Bowlby, 1969, Chapter 5). Bowlby's notion of "internal working models" (Bowlby, 1973) was later expanded by Ainsworth (1979), who defined "attachment styles" that help determine the quality of later relationships. Noting devastating consequences in young children separated from parents, Bowlby concluded that emotional difficulties such as depression resulted from early attachment difficulties. A wealth of research now links attachment difficulties to a range of psychiatric disorders (Egeland & Carlson, 2004).

3.2. Stress and social support: from relational theory to problems in relationships

Sullivan and Bowlby made human relationships central to understanding emotional health and illness. Both believed that development was not fixed from early childhood and that later experiences mattered. However, most adherents to interpersonal psychoanalysis and attachment theory focused principally on how internalized effects of early relationship experiences, in the form of "parataxic distortions" — the coloring of current interactions based on past experiences (Sullivan, 1953), internal working models (Bowlby, 1973), and attachment styles (Ainsworth, 1979), influenced later interpersonal problems and thus mental health. To effect meaningful change, the therapist still needed to gain access (e.g., through the transference) to the patient's internal life and to somehow modify embedded interpersonal tendencies. What emboldened Klerman, Weissman, and colleagues to propose that IPT could reduce disabling symptoms through work on a current interpersonal crisis or predicament? Primarily, it was the findings of epidemiologic research on stress, social support, and illness, which revealed that the current interpersonal context was closely tied to onset and course of psychiatric disorders. Further reinforcing IPT's emphasis were shifts within relational theory, which conceptualized internalized factors as increasingly dynamic and influenced by later experiences (e.g., Egeland & Farber, 1984).

3.2.1. Stressful life events

In the years prior to IPT's conception, epidemiologic research began to highlight the role of recent stressful experiences, chronic adverse social conditions, and social support in depression and other psychiatric illness. Paykel et al. (1969) noted that patients reported certain types of stressful events more frequently prior to depressive onset. These included "exit events", such as death of a loved one or separation from a spouse, and other "negative" events such as physical illness, work problems, or sexual difficulties. Studies have since identified stressful life events as precipitants of bipolar disorder (Hlastala et al., 2000), anxiety disorders (Blazer, Hughes, & George, 1987), and eating disorders (Welch, Doll, & Fairburn, 1997). These research findings corroborated clinicians' impressions that patients often sought treatment in the context of life difficulties. Interestingly, the importance of life events in psychiatric illness was presaged by Sullivan's chief inspiration, Adolph Meyer, who in 1919 introduced the detailed *life chart* to track patients' important life events and how these influenced onset and course of illness (Meyer & Winters, 1951).

3.2.2. Chronic stressful conditions

Although dramatic, acute life events are most obvious, enduring social conditions also matter. Brown and colleagues (Brown, Bifulco, Harris, & Bridge, 1986; Brown & Harris, 1978) linked chronic stressful life conditions in the form of poverty or other adversity to depression in working class women. Weissman and Paykel (1974), showing the high prevalence of marital discord among depressed women, suggested the particular importance of this chronic stressor. Subsequent research corroborated the association of marital discord with depression (Beach, Sandeen, & O'Leary, 1990) and other disorders (Halford & Bouma, 1997). Later research indicated that marital difficulties often preceded depression (Whisman & Bruce, 1999), suggesting that these are not merely consequences of the patient's depressed mood.

3.2.3. Social support

Brown and Harris (1978) also considered positive, potentially protective features of social connections and the negative impact of their absence. In their study of working class women, the lack of a close confidant constituted a strong risk factor for later depression. Concurrently, Henderson et al. (1978) associated a poor social support network with neurosis. Numerous studies have since linked low social support to symptoms and diagnosis of depression (Duer, Schwenk, & Coyne, 1988; Monroe, Bromet, Connell, & Steiner, 1986) and other psychiatric disorders (e.g., Stice, 2002).[3] Intimate relationships, such as marriage, appeared to be an especially important source of support (Coyne & DeLongis, 1986).

Social support may *buffer* the negative effects of stress and adversity (Cohen & Wills, 1985) or act as an independent positive factor promoting psychological health (Overholser & Adams, 1997). Conversely, lack of social connection or loneliness (Cacioppo et al., 2002) and social exclusion (MacDonald & Leary, 2005) constitute powerful sources of stress. Loneliness is a risk factor for depression (Green, Copeland, Dewey, Sharma, & McWilliam, 1992) and other psychiatric disorders (Rotenberg & Flood, 1999), findings that are consistent with the lifelong needs for intimacy and attachment described by Sullivan and Bowlby.

3.3. The reciprocal relationship of disorder and interpersonal context

Although research on stress and social support suggested a causal role for interpersonal context, IPT views the relationship between psychiatric disorders and interpersonal problems as reciprocal. Clinicians observed, for example, that depressed patients often evoked strong reactions in others, including therapists. Psychoanalysis viewed this phenomenon unsympathetically, interpreting it as evidence of the patient's veiled hostility (Bonime, 1976). Coyne (1976), however, proposed an interactional model consistent with an interpersonal framework, wherein the individual's depressed mood leads her to seek reassurance from a loved one yet leaves her unable to accept this reassurance. This creates a vicious interactive cycle leading to increased frustration with and, ultimately, distancing from the depressed individual (Coyne, 1976). This increases isolation and decreases social connections for the depressed person, which helps perpetuate the depressed state. Interactional models have been proposed for other disorders such as social phobia (Alden & Taylor, 2004). IPT endorses this interactional view, seeing not only other people *but the disorder itself as an important, contributory character in the current interpersonal drama.* In the context of a disorder, such as depression, it is viewed as unfair to blame the patient for the current predicament. Rather, IPT shifts blame to the context itself and the disorder.

[3] While it is important to consider methodological limitations inherent in research on stress and social support as causal factors in psychopathology (e.g., Hammen, 2005; Paykel et al., 1969), discussion of these is beyond the scope of the current report.

3.4. IPT's diathesis–stress model: precipitating and maintaining factors

As evidence of genetic and biological etiologic factors mounted for many psychiatric disorders, *diathesis–stress* (or vulnerability–stress) *models* emerged that considered both internal, constitutional factors and external, environmental factors causal (e.g., Meehl, 1962). The *diathesis–stress model* shifted the paradigm in psychopathological theories. Whereas early psychoanalytic theories ventured comprehensive etiological models to explain why particular individuals developed symptoms, the diathesis–stress view presumed multiple causes. Accepting that biological factors figured prominently in *diathesis*, IPT focused on the *stress* side of this model. IPT sought to identify psychosocial factors, in the form of stressful life events or interpersonal predicaments that *precipitated* and *maintained* psychiatric illness, primarily by increasing interpersonal stress and undermining social support (Fig. 1). Although stressful life events and challenging social conditions, highlighted by Paykel, Brown, and Harris, could not fully explain the *etiology* of depression, they could explain why, given biological and other vulnerability factors (*diathesis*), a depressive episode might develop at a particular time, persist longer, or recur sooner. Substantial evidence now supports this diathesis–stress model for major depression (Monroe & Simons, 1991) and other psychiatric disorders (Hankin & Abela, 2005). Research has begun to elucidate how environmental and biological factors interact to influence the course of illness (e.g., Caspi et al., 2003).

As Fig. 1 shows, a stressful life event, a particular developmental stage, or challenging ongoing conditions, in the context of stable interpersonal factors, such as insecure attachment style or deficits in interpersonal skills, may *become* an *interpersonal problem* — a prominent crisis or predicament. The interpersonal problem meaningfully increases interpersonal stress and impedes social support, which, in the context of genetic, biological, and personality vulnerability factors (diathesis), precipitate and maintain symptoms. Life transitions, conflicts, personal losses, and the stress these create, further generate strong emotions, while lack of social support undercuts adaptive means of processing and regulating these, leading to difficulties with emotions, which may further affect mood and symptoms. Reciprocal effects of the disorder (dotted line) might worsen aspects of the problem itself (e.g., increasing irritability in a marital conflict) and hinder adaptive interpersonal behavior (e.g., decision-making, assertiveness) needed to resolve this problem.

Stressful life events and conditions precipitate and maintain psychiatric disorders through biological pathways including neuroendocrine (e.g., Shekhar, Truitt, Rainnie, & Sajdyk, 2005), immune dysregulation (Kiecolt-Glaser, McGuire, Robles, & Glaser, 2002), inflammatory (Miller, Chen, & Parker, 2011), and epigenetic effects (Toyokawa, Uddin, Koenen, & Galea, 2011). Stressful events and conditions may lead to behavioral changes, such as alteration of activity level and sleep, which increase risk of depression and other disorders (Riemann, 2003; Strawbridge, Deleger, Roberts, & Kaplan, 2002). The loss or diminution of positive, protective effects of social support may likewise precipitate and maintain psychiatric disorders through a range of biological, psychological, and behavioral channels (some which are described below in the section on social support).

3.5. The interpersonal problem as framework and change process

Recognizing the importance of the interpersonal context in precipitating and maintaining psychiatric disorders, IPT focuses therapy on a central interpersonal problem in the patient's life and proposes that resolving this crisis constitutes a central *interpersonal change process* (Fig. 2). Adapting basic elements of psychotherapy change outlined by Doss (2004), we distinguish here between a) therapy change processes — interventions or aspects of the therapy; b) client/interpersonal change processes — proximal changes in the client's interpersonal context as a direct result of these interventions; and c) change mechanisms — intermediate, theory-based steps that explain the association of these processes with outcome.

IPT helps the patient to resolve the interpersonal problem (crisis or predicament) through a range of therapeutic interventions (therapy change processes) intended to alter the problem itself, change her/his relationship to the problem, or both. This framework fundamentally distinguishes IPT from most individual therapy models, which identify the problem within the patient and seek to change some problematic aspect of the patient's personality, attachment style, schemas, and so forth. IPT attempts not to fix a problem in the patient, but to help the patient fix the problem in the interpersonal context and her relationship to this problem, thereby helping her to enhance her life situation and to recover from the psychiatric syndrome. For most individual therapies client change processes (*b* above) involve proximal changes in the patient during sessions or through homework (e.g., identifying automatic thoughts in cognitive therapy). For IPT the central change process occurs not in the patient but in the interpersonal context. Along the way, the patient may well learn to better understand and manage emotions and interpersonal encounters more generally, but the primary goals are to resolve the current problem and reduce symptoms.

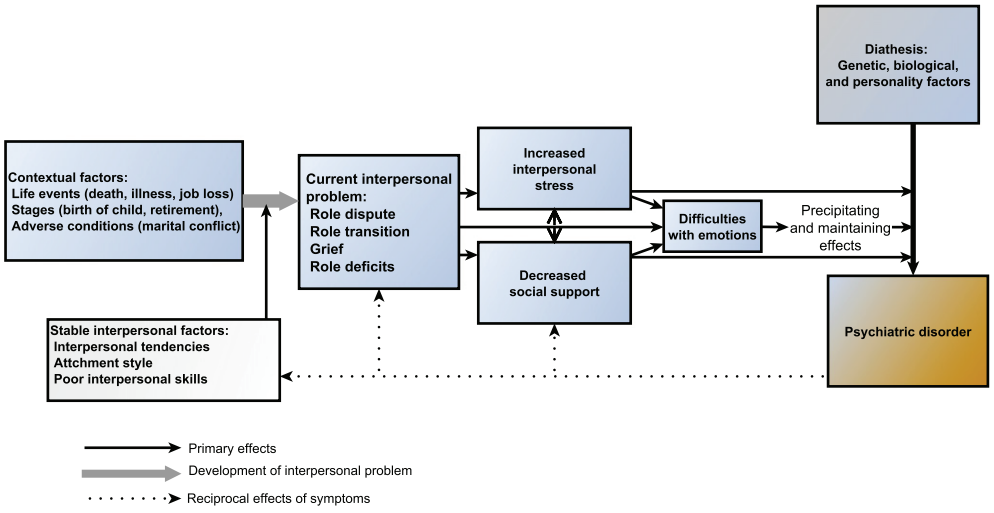

Fig. 1. IPT model of interpersonal problems as precipitating and maintaining factors in psychopathology.

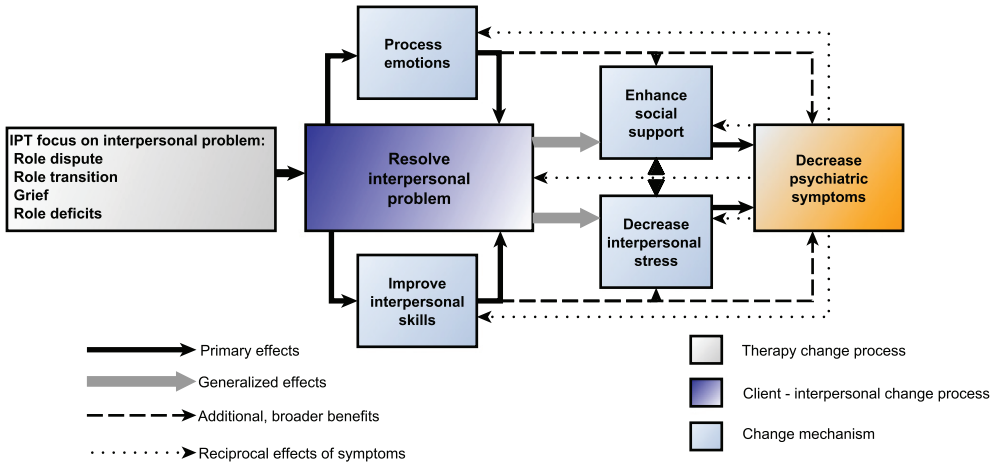

Fig. 2. Hypothesized interpersonal change processes and mechanisms in IPT.

IPT addresses the patient's problematic patterns and tendencies insofar as they contribute to the current problem or impede progress toward its resolution. For example, IPT might address a patient's perfectionism in the context of a *role dispute,* in which perfectionism worsens the conflict or prevents steps toward resolving it, but this same characteristic might have less relevance to IPT work on another problem such as *grief.* The IPT therapist might also attribute current perfectionism to mood-dependent vulnerability, rather than to the patient's personality.

Although personality and other internal factors may contribute to developing interpersonal problems (e.g., Hammen, 2005), these factors do not explain all the variance. Often the patient is a victim of circumstances (e.g., the untimely death of a loved one, a chronic medical illness) or stuck in a noxious predicament (e.g., a loveless marriage, a dead-end career) and needs the therapist's help to become unstuck. Alternatively, once-adaptive aspects of the patient's interpersonal style (e.g., stubborn independence) may now poorly fit a new interpersonal role. Again, the psychiatric disorder may exacerbate the interpersonal crisis and inhibit progress in resolving it. Assessing stable personality traits in the context of an impairing syndrome is complicated; therefore, IPT takes a wait-and-see approach. It thus avoids the traditional focus on problematic patterns, which can potentially demoralize the patient and risks invalidating the patient's experience by emphasizing what the patient is doing wrong rather than their experience of injury and distress (Bateman & Fonagy, 2010).

The interpersonal problem encompasses not only the specific focal situation but other interpersonal factors influencing the patient's experience of the problem. For example, marital conflict (*role dispute*) might sometimes persist, but the patient will experience it very differently (as less stifling, humiliating, angering) once s/he has stopped accepting all the blame, has begun to consider effective options for response, and has obtained previously untapped support from a close friend. The limitations and physical pain of a chronic illness (*role transition*) might linger, but the patient may feel better after expressing associated anger and sadness more openly, becoming more forgiving and accepting of this new reality, and altering interpersonal patterns (e.g., turning more easily to others for help), thus now feeling less isolated, more socially competent and valuable. In such cases the interpersonal problem is, at least partially, *resolved*, even though tangible aspects of life challenges and sources of distress persist.

Reinforcing the importance of this therapeutic frame, research indicates that IPT has greater efficacy when the therapist maintains focus on the interpersonal problem area (Frank, Kupfer, Wagner, McEachran, & Cornes, 1991; Frank et al., 2007). Although selecting and defining the interpersonal problem is no simple matter, IPT therapists tend to agree on which problem they would choose as a therapeutic focus for specific patients (Markowitz et al., 2000). Yet relatively little research has examined the degree of change in the focal interpersonal problem or whether such change is related to symptom reduction.

The Interpersonal Psychotherapy Outcome Scale (IPOS; Markowitz et al., 2000; Weissman, Markowitz, & Klerman, 2007) asks to what degree the patient feels that he or she has solved the focal interpersonal problem in IPT. Using the IPOS, Markowitz and colleagues (Markowitz, Bleiberg, Christos, & Levitan, 2006) found that symptomatic improvement in dysthymic disorder and PTSD correlated with patients' ratings of degree of resolution of the interpersonal problem. Although a beginning, the IPOS has limitations. It does not assess the salience, initial severity, or broader context of the interpersonal problem. To more systematically assess a broader context of interpersonal problems, the Interpersonal Problems Questionnaire (IPQ; Menchetti et al., 2010) assesses: a) interpersonal relationships; b) broader aspects of social life; and c) recent major life events. This scale, however, fails to track change in the focal interpersonal problem as the IPOS does. No IPT study has combined these approaches, nor tested the IPOS or IPQ as mediators of symptom change in IPT.

3.6. From interpersonal framework to mechanisms of change

How does resolving the interpersonal problem alleviate psychiatric symptoms? To date, IPT has not sufficiently elaborated mechanisms to account for this change. We propose that resolving the interpersonal problem affects symptoms through the following mechanisms: 1) enhancing social support, 2) decreasing interpersonal stress, 3) facilitating emotional processing, and 4) improving interpersonal skills.

As Fig. 2 illustrates, resolving the interpersonal problem enhances social support and decreases interpersonal stress, which can be conceptualized as "changes that have generalized into the client's (everyday) life…" (Doss, 2004, p. 370). Resolving the problem necessitates processing emotions and expressing these in the interpersonal context. Finally, overcoming a crisis or predicament, and breaking negative interactional cycles, requires adapting and improving interpersonal skills. Emotional processing and interpersonal skills, for which evidence regarding precipitating/maintaining effects is less compelling, are viewed as primarily *facilitating* the resolution of the interpersonal problem, thus affecting symptoms through subsequent changes in social support and stress. Facilitating this resolution involves "steps or processes through which therapy actually unfolds and produces change" (Kazdin, 2007, p. 3). At the same time, engaging these latter mechanisms in service of the target problem expectably yields broader benefits that might also affect symptoms (Fig. 2, dashed lines). Dotted lines from symptoms depict reciprocal effects of (decreases in) symptoms. For simplicity's sake, we portray primary therapeutic processes and do not depict every interrelationship.

For example, we have not presented that social support is thought to decrease symptoms partly through its positive effects on regulating emotions.

Below we describe the hypothesized change mechanisms and explain how each mechanism is thought to function within IPT. For the two facilitative factors, we present expected, broader effects. Although tests of mediation in IPT are scarce, we present relevant empirical research for each mechanism.

4. Mechanism 1: Enhancing social support

The term *social support* might evoke negative reactions in psychotherapists to whom it suggests concrete or superficial aspects of human relationships. Indeed, as *support* implies some resource another person provides (Cohen & Syme, 1985), this term appears to ignore the inherent importance of intimate human connection proposed by Sullivan and Bowlby. However, social support encompasses the gamut of interpersonal resources, from the availability of a friend to lend money to the warm embrace of an intimate partner. This need for human connection can also be conceptualized, following Bowlby, as reflecting an ongoing need for *attachment*. However, the term attachment refers simultaneously to the capacity for making connections, the individual's relational style, and the mother–infant bonding experience. As such, this term might obscure IPT's radical departure from relational theory's early focus on internalized aspects of early experiences. In our view, social support better captures IPT's focus on all aspects of the current relational context, including the individual's functional roles within society. Indeed, some social support researchers have presented IPT as a social support-oriented intervention (Brugha, Stansfeld, & Freeman, 2008). However, only recently have theoretical discussions of IPT emphasized social support *per se* (Champion, 2012; Lipsitz, 2009).

Theorists have outlined specific benefits of social support that might help explain effects on mental health (Thoits, 2011). These range from social influences on health behaviors (exercise, nutrition, sleep, etc.) emerging from social comparison and positive peer pressure to companionship itself, which generates positive affect (Thoits, 2011). Two examples are interpersonal emotion regulation and social roles.

Emotional dysregulation is a feature of many psychiatric disorders (Gross, 2009). Although much recent research focuses on internal (e.g., cognitive) regulation capacities and processes, emotions are largely processed and regulated within relational systems (Lakey & Orehek, 2011; Marroquín, 2011). Other people may aid emotion regulation through reappraisal (Lakey & Orehek, 2011) or through *holding* (Winnicott, 1965) and *containment* (Bion, 1995) — the soothing and stabilizing effect of an empathic, maternal embrace within a supportive relationship. Relational theory suggests that under positive conditions the developing child gradually internalizes the soothing function of the caretaker (e.g., Winnicott, 1965). However, adults continue to rely on loved ones for this holding function (e.g., Greenberg & Johnson, 1988).

Social roles (husband, father, son, accountant, friend, congregant, etc.) provide behavioral constraint and regulation through social obligations, routines, and expectations (Durkheim, 1897/1951), helping to stabilize mood states. They also provide a sense of meaning and purpose deriving from having a place and function (mattering) within society. Social roles provide myriad predictable, interactive tasks to fulfill, which can increase self-efficacy (Bandura, 1977) and success experiences which enhance self-esteem.

For most adults, the marriage/life partner relationship holds unique importance and moderates effects of other sources of support (Coyne & DeLongis, 1986). The quality of the bond, measured along dimensions of relationship satisfaction, intimacy, trust, responsiveness, commitment, and conflict, may determine experience of support versus discord (Reis & Collins, 2000). Weissman and Paykel's detailed portrayal of marital problems in depressed women (1974) anticipated epidemiologic findings that women in unhappy marriages were 25 times more likely to be depressed than those in happy marriages (Leaf, Weissman, Myers, Holzer, & Tischler, 1986). Numerous studies have since corroborated the association between marital problems and depression and other psychiatric disorders (Whisman, 2007). As psychiatric symptoms reciprocally contribute to marital problems, this association is complex (Rehman, Gollan, & Mortimer, 2008).

4.1. Social support within the IPT interpersonal problem areas

Each IPT interpersonal problem area reflects a difficulty in the patient's current environmental context that disrupts and undermines social support. *Role transitions* (e.g., divorce, retirement, illness) are life changes that interrupt or interfere with established social ties. A patient who has given birth to a child or is dealing with a challenging illness may temporarily lose her social bearings and sources of support. *Role disputes* reflect conflict in a primary relationship that might otherwise be an important source of social support. Besides generating stress, a dispute compromises the supportive function of this relationship. *Grief* denotes the loss through death of a primary social tie that previously provided support, belonging, and social value, along with difficulty investing in and drawing benefit from alternative connections, leaving the individual emotionally distanced from others who do not share this grief. *Interpersonal deficits* reflect general isolation, and lack of interpersonal connection and support (Weissman et al., 2007). In all of these cases, *resolving* the interpersonal problem is expected to meaningfully improve social support for the patient in a more general sense.

4.2. Enhancing social support in IPT

In focusing on resolving a specific interpersonal problem as a means of enhancing social support, IPT differs from supportive therapy (e.g., Pinsker, 2002) and from systematic social support interventions, which seek to directly improve support more globally. IPT further differs from some relational psychoanalytic therapies, which view supportive *holding* as a primary function of the therapist (e.g., Winnicott, 1965), believing that this will ultimately improve the patient's internal emotion regulation. IPT views the therapeutic relationship as an important transitional source of social support, providing a reassuring, safe connection during a difficult crisis, filling the gap created by a lost relationship, or reducing tension in a conflict-filled relationship. However, it emphasizes the evanescence of this time-limited role and uses the therapeutic relationship as a springboard to develop, strengthen, renew, and deepen outside relationships. The therapist actively encourages the patient to develop supportive relationships outside of therapy, and helps her engage and rely more on others through communication analysis and role play.

Some additional features of IPT help patients to more effectively obtain and more readily accept social support. Stroebe and Stroebe (1996), in a review, concluded that people offer social support more readily when they perceive: 1) that the individual has a clear need, 2) the problem is not the individual's fault, and 3) the individual is trying to overcome the problem. In providing the *medical model* and the *sick role*, IPT emphasizes that the patient suffers from a treatable psychiatric disorder not of his or her own making, has an acute and justified need for support, and by seeking treatment is mobilizing to help him/herself, thus inviting patience, empathy, and support from others. Some evidence indicates that receiving social support can itself cause distress, perhaps due to feeling guilty and demoralized by dependency (Bolger, Zuckerman, & Kessler, 2000). The *medical model* and *sick role* offer the patient herself a forgiving explanation for the temporarily increased need for support, helping her to avoid feelings of demoralization.

To highlight chronic challenges of discomfort with social roles and low social self-efficacy in social phobia, IPT's adaptation for this disorder identified *role insecurity* as an alternative interpersonal problem focus (Lipsitz, Markowitz, & Cherry, 1997). IPT for eating disorders views

difficulties with self-efficacy and self-esteem, linked to problems in the relational context, as closely connected to problematic eating behaviors (Murphy, Cooper, Hollon, & Fairburn, 2009; Rieger et al., 2010).

4.3. Research on social support

Research has yet to examine social support measures as potential mediators of symptom change in IPT. In one study of maintenance IPT for depression, the initial, index episode was associated with stressful life events (Harkness et al., 2002), but during subsequent, monthly maintenance IPT treatment, the association between level of stress and depressive symptoms no longer held. This raised the possibility that IPT might have ameliorated social support, thus buffering against stress. Unfortunately, this study did not measure social support.

Examining regulation effects that might be tied to social roles, Frank and colleagues examined social *zeitgebers* (time-bound daily routines) in patients with bipolar disorder. They found that zeitgebers protect against bipolar episodes (Frank, Swartz, & Kupfer, 2000). Further, they found that improving social rhythm regularity mediated the protective effect of interpersonal social rhythm therapy (IPSRT) against new episodes of bipolar disorder (Frank et al., 2005). The association of zeitgebers and aspects of social support warrants further study.

In the Treatment of Depression Collaborative Research Project (TDCRP), Kung and Elkin (2000) found improved marital adjustment after 16 weeks of treatment was associated with better outcome in depressive symptoms and social adjustment at follow-up. Yet in that study, cognitive behavior therapy (CBT), although less likely to identify marital adjustment as a specific goal of therapy, yielded improvements in marital adjustment similar to those of IPT. Because change in martial adjustment was measured only post-treatment, after symptomatic change had already occurred, this measure most likely reflected a result rather than a mediator of symptomatic recovery.

5. Mechanism 2: Decreasing interpersonal stress

Interpersonal stress is sometimes conceptualized as the inverse of social support. However, effects of negative interpersonal experiences extend beyond lack of social support (Rook, 1984) and present different clinical challenges. We therefore conceptualize (reducing) *interpersonal stress* as a separate change mechanism. As presented above in IPT's Interpersonal Model (see Fig. 1), IPT's focal problems were chosen as major life events or chronic stressful conditions empirically linked initially to depressive episodes and later to other psychiatric disorders.

Although not all prominent stressors are interpersonal, most are. Stressful interpersonal experiences typically provoke greater emotional distress than impersonal stressors (Bolger, DeLongis, Kessler, & Schilling, 1989), a pattern that also holds for trauma and posttraumatic stress disorder (Dorahy et al., 2009). Yet impersonal stressors often have meaningful interpersonal effects. A job loss or illness causes significant stress due to diminished finances or compromised physical health. However, stress is increased when these events undermine the individual's social roles and interfere with relationships; these interpersonal consequences may become a focus of work in IPT.

The role of prominent stressors seems to differ across episodes of psychiatric disorder. In depression, major life events are more prominently associated with first than with subsequent episodes (Monroe, Rohde, Seeley, & Lewinsohn, 1999). This diminishing association may be due to a "kindling" effect (Post, Rubinow, & Ballenger, 1986). However, subsequent episodes have been linked to minor life events (Lenze, Cyranowski, Thompson, Anderson, & Frank, 2008) or chronic adversities (Monroe, Slavich, Torres, & Gotlib, 2007). Minor events (*daily hassles*) might also mediate effects of major stressors (Kanner, Coyne, Schaefer, & Lazarus, 1981). Chronic adversities, as highlighted by Brown and Harris (1978), involve enduring stressors such as single parenthood and family conflict. IPT's efficacy in forestalling recurrent depression (Frank et al., 2007) may reflect its capacity to address and reduce stress under chronic adverse conditions, not just acutely stressful events.

5.1. Addressing interpersonal stress within the interpersonal problem areas

Each IPT interpersonal problem area constitutes an interpersonal stressor for the patient; hence a primary goal is to reduce the patient's stress experienced in this context. The death of a loved one (*grief*) is among the most stressful of life events (Holmes & Rahe, 1967). IPT seeks to facilitate the grieving process and help the patient reengage in other relationships so that this loss eventually becomes less distressing. For *role disputes,* IPT attempts to lessen stress associated with ongoing friction, anger, shame, helplessness, and alienation that may occur in a discordant relationship. This may involve an intermediate stage of heightening the conflict so that the patient can express negative feelings more openly and explore options for renegotiating the relationship. *Role transitions* strain the individual's existing modes of adaptation, as the earliest definition of *stress* suggests (Selye, 1955). This may also occur with seemingly "positive" events, such as marriage, the birth of a baby, starting college, or a promotion. IPT seeks to help the patient reduce the stress of the transition by acknowledging and mourning losses, clarifying positive and negative aspects, identifying and processing strong feelings about the transition, and modifying interpersonal patterns. In *interpersonal deficits,* lessening the stress of loneliness and isolation (Cacioppo & Hawkley, 2003) becomes a primary goal.

Horowitz (2004) proposed two categories of interpersonal stressors involving different interpersonal needs. Some stressors may reflect problems related to *communion*, interrupting stable attachments and leaving the individual feeling lonely, rejected, and disconnected. This might typify *role transitions* like a romantic breakup, "empty nest", or relocation. Other stressors, challenging the need for *mastery*, make the individual feel helpless, inferior, and a failure (Horowitz, 2004). This category may better capture *role transitions* such as unemployment or illness. Often, both aspects are intertwined in the context of the interpersonal problem.

5.2. Decreasing interpersonal stress in IPT

Numerous psychological interventions seek to reduce stress by helping the patient change his/her patterns of cognitive processing (cognitive therapy), re-deploy attention to the present (mindfulness training), or induce relaxation (e.g., applied relaxation). These have the common goal of helping the patient better manage and cope with challenging situations. As described above, IPT views the *interpersonal problem* itself as the primary culprit for current feelings of stress. It seeks to decrease stress by changing stressful aspects of this reality or the patient's relationship to it. Additional features of IPT, such as the medical model, the sick role, and the therapeutic relationship, also seek to decrease stress by temporarily alleviating social burdens and expectations.

Some types of stressful events or situations appear to have a closer etiologic association with certain psychiatric disorders, such as exit events with depression (Paykel et al., 1969); role transitions leading to social rhythm disruptions in bipolar disorder (Malkoff-Schwartz et al., 1998); or conflicts in agoraphobia (Kleiner & Marshall, 1987). IPT for these disorders is likely to focus on these specific types of stressful events.

5.3. Research on interpersonal stress

Studies have examined interpersonal stress measures as moderators, but not as mediators of change in IPT. For example, a recent study of IPT for depressed adolescents found IPT more efficacious for teens who at baseline had a prominent conflict with a parent (Gunlicks-Stoessel, Mufson, Jekal, & Turner, 2010). Another study found that minor life events predicted depressive recurrence during maintenance IPT (Lenze

et al., 2008), suggesting that minor life events should also be considered. Two promising contexts for studying chronic stress in IPT are familial expressed emotion (EE; Leff & Vaughn, 1985) and marital conflict.

EE involves high levels of hostility, criticism, and emotional over-involvement, presumptively stressful for the patient (Leff & Vaughn, 1985). High EE is associated with heightened relapse and recurrence rates across psychotic, mood, eating, and post-traumatic stress disorders (Hooley, 2007). Family interventions to decrease EE reduce patient relapse rates (Eisler et al., 2000). Although IPT does not explicitly address EE, it attempts to reduce interpersonal conflict, most explicitly in *role disputes.* IPT *psychoeducation* provides a forgiving perspective through which intimates can view the patient's problems. Like EE theory, IPT emphasizes that interpersonal difficulties are interactional. Noting an association between illness attribution and interpersonal factors in relatives of elderly depressed patients, Hinrichsen, Adelstein, and McMeniman (2004) proposed that better understanding of EE may inform interventions for caregivers. Studies have examined the moderating effects of EE on cognitive behavior therapy (Chambless & Steketee, 1999), but not on IPT.

Marital conflict not only undermines social support but directly increases stress, especially through increased hostility (Beach et al., 1990). Marital disputes, measured with the marital adjustment subscale of the Social Adjustment Scale, predicted worse outcome in one IPT study (Rounsaville, Weissman, Prusoff, & Herceg-Baron, 1979). Couples interventions targeting marital discord have been found to decrease symptoms of depression and other psychiatric diagnoses (Lebow, Chambers, Christensen, & Johnson, 2011), suggesting a possible mediating effect for (reducing) conflict. Conjoint (couples) IPT may be best suited for this problem area, but unfortunately has received little research attention (Foley, Rounsaville, Weissman, Sholomskas, & Chevron, 1989).

6. Mechanism 3: Processing emotions

Emotions are the primary language of interpersonal relationships, and central tasks in confronting and surmounting interpersonal problems in IPT comprise identifying, processing, and expressing emotions that arise in this context. Early psychoanalytic theory viewed the very expression of emotions ("catharsis") as curative, relieving internal tension created by repression (Freud & Breuer, 1955). Some conceptualizations of depression focused on repressed anger or "anger turned inward" (Abraham, 1911/1927; Rado, 1928), implying that expressing anger might alleviate depression. Catharsis/ventilation is among the most frequently listed common factors of therapy (Grencavage & Norcross, 1990).

Although some research supports a cathartic benefit for emotions such as aggression (e.g., Verona & Sullivan, 2008), contemporary emotion models emphasize the interplay of emotions and other factors. Emotion focused therapy (EFT) identifies *emotion schemes* – internalized emotional structures influenced by past interpersonal experiences – as major sources of distress and psychopathology (Greenberg & Watson, 2006). Mindfulness-based approaches propose that open, non-evaluative processing of emotions can alter cognitive appraisals, which are thought to worsen suffering (Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006). Mentalization-based treatment (Bateman & Fonagy, 2004) conceptualizes some psychiatric disorders as linked to confusion in interpreting emotional states. Its goal is to help the patient achieve *reflective function* — the ability to understand one's own and others' emotional states and to clearly distinguish them. This capacity putatively helps the patient to better modulate emotional responses (Bateman & Fonagy, 2004). Although its goals of processing and making sense of emotions overlap with other emotion-oriented therapies, IPT engages emotional processing primarily in the service of confronting and *resolving* the focal interpersonal problem. As such, the quality and scope of emotion work in IPT will vary with the challenges of the problem. By facilitating resolution of the interpersonal problem, emotional processing contributes to enhanced social support and decreased stress thereby decreasing symptoms (Fig. 2).

6.1. Processing emotions within the interpersonal problem areas

Interpersonal losses, changes, and conflicts generate varied, powerful emotions that individuals with depression and other psychiatric disorders may have difficulty tolerating, understanding, and expressing (Markowitz & Milrod, 2011). The individual in a *role dispute*, feeling frustrated and angry, may need help accepting the legitimacy and appropriateness of these feelings, understanding their interpersonal meaning (e.g., anger often means someone is bothering you, failing to respond to you); and then expressing them, perhaps initially in sessions and role plays with the therapist, and later directly to the relative, partner, friend, or boss. Someone experiencing a *role transition*, such as adjusting to a serious illness, may need to *mourn* the old role and adjust emotionally to the new role by increasing awareness, acceptance, and ability to express uncomfortable feelings of sadness, anger, shame, and guilt. The therapist seeks to help the patient first acknowledge the presence and depth of these feelings, then verbalize them, all the time accepting their legitimacy, validity, and social utility. In complicated *grief*, emotional processing may be a central thrust of IPT as the patient needs help processing the loss before s/he can reinvest in existing connections or establishes new ones. In *interpersonal deficits* the novel experience of sharing and expressing uncomfortable emotions with the therapist may be an important first step to increased openness and comfort in other relationships.

6.2. Processing emotions in IPT

IPT distinguished itself from Beck's cognitive therapy partly through its emphasis on affect (feeling states) rather than cognitions or evaluative aspects of emotions (Elkin, Parloff, Hadley, & Autry, 1985). IPT invites, accepts, and validates affective expression, while emphasizing the interpersonal character and effects of emotions. Emotion work is integral to adapting to interpersonal challenges, reacting to interpersonal stress, and overcoming conflicts. Therefore, IPT seeks to quickly shift expression and awareness of emotions from the session to the real relational context. Again, IPT focuses on *fixing the problem in the interpersonal context* rather than an underlying problem the patient has in processing emotions. Because the psychiatric disorder may impede emotional processing we resist drawing conclusions about emotional handicaps or blocking.

6.3. Broader benefits of IPT work on emotional processing

Although the primary goal of processing emotions in IPT is to facilitate resolution of the interpersonal problem, intensive work on difficult feelings, their acceptance and consistent validation in a close, supportive therapeutic relationship; and coaching on their constructive expression outside the therapy might expectably yield additional, broader lasting, emotional benefits for many patients. For example, patients should attain greater attunement to and normalization of feelings, and greater ability to express and verbalize such feelings in the interpersonal context (Fig. 2, dashed line). Thus, Markowitz and colleagues (Markowitz, Milrod, Bleiberg, & Marshall, 2009) proposed that reflective function (Bateman & Fonagy, 2004), a presumably enduring ability to understand one's own and others' emotions, might also mediate change in IPT for patients with chronic PTSD who are poorly attuned to their own emotional states.

6.4. Research on emotional processing

There has been very little systematic research on emotional factors in IPT. A secondary analysis of emotional factors in the TDCRP found that "collaborative emotional exploration" was rated higher in IPT

than in CBT sessions and that this dimension correlated with positive outcome (Coombs, Coleman, & Jones, 2002). However, this study used transcripts from a selected sample of sessions, and a coding system that overlapped problematically with alliance factors. State of the art assessment of emotional processing includes physiologic measures of arousal and ratings from taped sessions using validated coding systems. For example, Greenberg and Malcolm (2002) found that patients who experienced more intense emotions in EFT, as indicated by greater physiologic arousal, achieved greater problem resolution.

7. Mechanism 4: Improving interpersonal skills

Most psychiatric disorders entail difficulties in interpersonal functioning. Although often conceptualized as consequences of psychiatric disorders, such difficulties may also contribute to their development (Lewinsohn, 1974) and persistence (Coyne, 1976). Some therapies make improving interpersonal skills a primary goal. Structured social skills training programs benefit patients with unipolar depression (Bellack, Hersen, & Himmelhoch, 1981) and social phobia (Stravynski, Marks, & Yule, 1982), among other disorders. However, nearly all psychotherapies seek to nurture and enhance interpersonal skills in less structured ways. Indeed, improving interpersonal functioning ranks among the most universal goals in psychotherapy (Follette & Greenberg, 2005).

In his behavioral model of depression, Lewinsohn (1974) proposed that deficient social skills hindered the ability to obtain positive reinforcement. Similarly, the deficits model of social phobia proposes that individuals fail to interact with others because they lack social skills, and that this avoidance generates increased anxiety (Curran, 1977). Research has not provided clear support for such causal effects (Hokanson & Rubert, 1991); rather the association of skills and symptoms appears complex and reciprocal.

Noting that problematic interpersonal behavior might increase vulnerability to psychopathology, some interpersonal theorists have focused on personality-based interpersonal patterns (Anchin & Kiesler, 1982). Horowitz developed the widely used Inventory of Interpersonal Problems (IIP; Horowitz, 2004) to assess and characterize such problematic tendencies. IPT focuses less on these stable patterns, but considers improving or adapting interpersonal skills essential to successful resolution of the current crisis or predicament. Improving social skills in IPT may yield symptomatic change secondarily, through improved social support and decreased stress (Fig. 2).

7.1. Addressing interpersonal skills within the interpersonal problem areas

IPT seeks to improve interpersonal skills primarily within the framework of the focal interpersonal problem area. In a *role dispute* this may include learning to communicate feelings more directly, using constructive assertiveness, or learning to diffuse tension. In *role transitions,* IPT focuses on skills needed to better adapt to the new interpersonal role. For a patient dealing with an illness, this may involve expressing his or her needs to others or setting limits with a caring but intrusive caretaker. For a retiree, this may include learning to initiate social contacts and activities. In *Grief* interpersonal skills may include independent functions previously managed by the deceased. Communication skills may play a more central role in *interpersonal deficits,* for which a range of skills might be needed to overcome social isolation.

7.2. Improving interpersonal skills in IPT

In contrast to behaviorist deficit models (e.g., Lewinsohn, 1974), IPT presumes that patients generally possess latent social skills but have trouble employing these effectively due to interference from the current crisis, the psychiatric episode, or both. As such, there is generally no need for the systematic, general didactic skills training that behaviorally oriented programs provide. The IPT therapist identifies specific skills needed to address an interpersonal predicament or to adapt more effectively to a new role. IPT addresses communication skills using *communication analysis* and *role play* while preserving focus on the specific interpersonal problem.

Some IPT adaptations have emphasized interpersonal skills to a greater degree based on deficits in specific populations. For example, reflecting the developmental context, IPT for adolescent depression places greater emphasis on developing social skills, including perspective-taking skills and negotiating parent–child tensions (Mufson et al., 1999). Likewise, IPT for binge eating disorder more consistently attends to constructive assertiveness and other social skills wanting in this population (Wilfley, 2000).

7.3. Broader benefits of IPT work on interpersonal skills

In addition to resolving the interpersonal problem, acquired skills are expected to generalize to other contexts. For example, the individual who has learned to become more constructively assertive in setting limits with an intrusive parent ("You're bothering me; I need some space") may apply this skill in other contexts. Along these lines, maintenance IPT seems to ameliorate habitual (Cluster C) personality features in recovered depressed patients (Cyranowski et al., 2004). Thus, improving interpersonal skills in IPT has expected broader benefits (dashed line in Fig. 2), possibly through behavioral (e.g., Lewinsohn, 1974) or interactional effects (Coyne, 1976). Once the problem has been resolved, improved interpersonal skills can help maintain social support and decrease stress so the patient might be less likely to be derailed by challenges in the future.

7.4. Research on improving interpersonal skills

Some studies have examined whether stable interpersonal patterns measured by the IIP mediate change in IPT. Results have been inconsistent, but have generally not shown that IPT yields more IIP change than other treatments (Stangier, Schramm, Heidenreich, Berger, & Clark, 2011), nor that IIP change mediates symptomatic change in IPT (Hoffart, Borge, Sexton, & Clark, 2009). This may be because the IIP measures general interpersonal tendencies, such as "assured" vs. "submissive" or "cold" vs. "warm", whereas IPT targets more specific interpersonal patterns only as they impinge on the current interpersonal problem and the patient's experience of it. Second, as a state mimics trait, the IIP may conflate features of the psychiatric episode with stable interpersonal traits.

Several IPT studies have examined a related construct, social adjustment, mostly using the Social Adjustment Scale (SAS; Weissman, Prusoff, Thompson, Harding, & Myers, 1978). Social adjustment correlates inversely with interpersonal problems measured by the IIP (Vittengl, Clark, & Jarrett, 2003) and might protect against psychopathology (Barton, Miller, Wickramaratne, Gameroff, & Weissman, 2012). In an early trial, depressed patients treated with IPT had better functioning at one-year follow-up on some measures of social adjustment compared to those treated with medication (Weissman, Klerman, Prusoff, Sholomskas, & Padian, 1981). The TDCRP investigators hypothesized that IPT, thought to treat depression by alleviating interpersonal problems, would benefit patients with more severe social maladjustment; whereas CBT, presumed to treat depression by addressing problematic cognitions, would have greater benefit for patients with more cognitive vulnerabilities (Imber et al., 1990). Results contradicted these hypotheses, suggesting that therapies may work best building on areas of relative strength. However, as the SAS measures actual performance rather than skills, it may be difficult to disentangle possible vulnerability factors from consequences of the disorder.

8. Summary and future directions

Building on foundations of relational theory and epidemiologic findings regarding life events, stress, social support, and course of psychiatric

illness, IPT proposes that psychiatric disorders are precipitated by, maintained by, but also contribute to interpersonal crises and predicaments. IPT seeks to relieve symptoms by targeting and resolving a focal interpersonal problem, in the process activating various interpersonal change factors. We propose that resolving the interpersonal problem leads to symptom change by: 1) *enhancing social support* and 2) *decreasing interpersonal stress.* Resolving the interpersonal problem entails 3) *processing emotions* that arise in this context, and 4) *improving interpersonal skills,* mechanisms which once engaged in IPT are also expected to yield broader benefits. None of these change mechanisms defines IPT nor will all factors have equal importance in a given treatment. IPT's seeks to activate all of these 1) in a coherent, plausible therapeutic frame, defined by a current interpersonal crisis or predicament; and 2) in a time-limited, diagnosis-focused treatment, which leverages common change factors. Surprisingly little research has tested which if any of these factors mediate change in IPT. We hope that this conceptualization and review will spur research on mediators and mechanisms of change in IPT. Research findings will help refine and improve this preliminary model.

We have accentuated the *interpersonal problem focus* as a defining framework and change process in IPT. Implicit assumptions are: a) that the focal interpersonal problem has sufficient salience that its resolution will translate into meaningfully improved social support and decreased interpersonal stress in the patient's everyday life and b) that it is primarily within this framework that emotions are processed and skills are improved in IPT. For some cases, presenting a circumscribed problem within an otherwise stable context, this assumption seems justified. For others, wherein therapist and patient must select a single problem from among numerous, pervasive, and challenging life circumstances, it is less evident how change in the focal problem (leaving other problems unchanged) will meaningfully affect overall level and quality of social support and stress or why work on emotions and skills should be limited to this framework. Often, under the rubric of a single IPT focus, patients manage to resolve multiple problems. However, resolving the interpersonal problem might be less essential to IPT than we propose; this framework might simply provide a *premise* through which to mobilize the patient to work actively and collaboratively with the therapist, elucidate the connection between interpersonal factors and symptoms generally, and increase self-efficacy (Bandura, 1977), sense of mastery (Weinberger, 1995), or self-esteem, generally. IPT studies need to examine whether change in the interpersonal problem correlates with change in the proposed mechanisms and if these changes mediate symptom change.

We have attempted to present a unified model that sees all four change mechanisms as relevant, perhaps to varying degrees, for all four IPT problem areas (*role transition, role dispute, grief, role deficits*). However, these interpersonal problem areas have somewhat distinct clinical challenges and therapy goals. It is possible that specific IPT problem areas may involve specific change mechanisms to the exclusion of others. In *grief,* for example, emotional processing is prominent, while improving interpersonal skills is emphasized less; the opposite is often true for *interpersonal deficits*. Thus each problem area might require a specific model of change.

IPT researchers need to test which interpersonal mechanisms mediate symptomatic change. To do so, we must first operationalize the proposed mechanisms by identifying candidate mediators and valid approaches to measurement. Studies may then determine, for example, whether symptom change in IPT is mediated by (enhancing) social support and, if so, what type (perceived? actual? in what domains?)? Evidence of mediation requires that 1) the mediator correlates with the treatment, 2) the mediator has a main or interactive effect with treatment on outcome, and 3) change in the mediator temporally precedes change in the outcome variable (Kraemer, Wilson, Fairburn, & Agras, 2002).

Evaluating mediation of change in IPT is challenging for two reasons. First, in contrast to internal change that depends mostly on the patient, resolving interpersonal problems involves interplay between the patient and others. Even as a patient improves, s/he has limited control over others' contributions. This complicates measurement of improvement in the interpersonal sphere. Second, interpersonal change is non-linear; distress often increases before the problem begins to resolve. In a *role dispute* that has reached an impasse, the patient may initially feel more distressed as she brings up long-suppressed feelings. In a brief 12–16-week acute therapy, in which many patients improve rapidly (Kelly, Cyranowski, & Frank, 2007), the window for detecting mediation effects is narrow.

Another approach to identifying active ingredients for understanding mechanisms is to dismantle therapeutic components. Perhaps the most successful example was Jacobson's classic study comparing cognitive behavior therapy for depression to its behavioral component alone (Jacobson et al., 1996). No comparable research has attempted to dismantle IPT and some have suggested IPT is too coherent a treatment to dissect into viable parts (Murphy et al., 2009). This is a testable hypothesis, however, and the approach may merit consideration in future IPT research.

The search for mediators of change is daunting. Negative findings have frustrated many researchers seeking to identify cognitive change mechanisms in depression, for example (Kazdin, 2007). Similar frustrations have beset other approaches, such as brief dynamic therapy (Grenyer & Luborsky, 1996). Nonetheless, identifying mediators may lead to refinements and improvements in IPT and enhance its application in a range of clinical populations. Thus the potential rewards of better understanding this already well-studied treatment outweigh the attendant difficulties.

Acknowledgment

The authors wish to thank our colleagues, including Golan Shahar, Gary M. Diamond, and Ilanit Hassan Ohayon and two anonymous reviewers for their comments on earlier versions of this report.

Appendix A. Supplementary data

Supplementary data to this article can be found online at http://dx.doi.org/10.1016/j.cpr.2013.09.002.

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