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Instrumental Inputs
Moving the Interpersonal Theory of Nursing Into Practice

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Instrumental inputs, the units of energy that are passed from nurse to client in therapeutic encounters, stimulate the client to develop new competencies. This article develops the concept, part of the Interpersonal Theory of Nursing, and discusses its use in 2 clinical trials of an advanced practice psychiatric-mental health intervention with high-risk mothers with significant depressive symptoms. Systematic documentation of instrumental inputs in the strategic interactions between advanced practice psychiatric-mental health nurses and clients has provided cumulative empirical examples that are presented. The concept has great utility for clinical practice and research and continuing development and testing of the Interpersonal Theory of Nursing. **Key words:** *depression, Interpersonal Theory, Latina, low-income, mothers, psychiatric nursing intervention, research*

IN 1952, the publication of Hildegard Peplau's *Interpersonal Relations in Nursing*[1] catalyzed a paradigm change for nursing practice by proposing that the interpersonal encounter between nurse and client could be used as a scientific intervention to promote the client's growth.[2,3] Prior to this, nursing intervention knowledge had focused on technical skills without factoring in the potential of the interpersonal exchange that occurred in the course of the nurse caring for clients. Peplau demonstrated that the nurse could help the client use a health event to reach deeper understandings and change behaviors in a way that would have lasting benefit.[4] In addition, by shifting the focus of nursing intervention from "doing for" clients to a "science of knowing," Peplau also guided nurses to interact systematically in client-centered, context-sensitive ways that would achieve intentional results.[5,6] By 1970, US baccalaureate nursing programs had incorporated interpersonal relations and training in basic therapeutic relationships into curricula as core competencies.[5] The Interpersonal Theory of Nursing (ITN) continued to be developed for advanced practice in the specialty of psychiatric nursing either directly by Peplau,[7–9] through her students,[2,5,9] or through contemporary clinicians and researchers whose work has extended the model and moved it closer to the formal requirements for a midrange theory.[10–23]

Recently, the authors and colleagues launched 2 clinical trials of a home-based intervention targeting depressive symptoms

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in high-risk populations of mothers of infants and toddlers. The intervention is derived from the ITN. During the preliminary phases of the projects, formal theory development was conducted to more closely connect the concepts and propositions of ITN to the interventions that nurses did with the mothers. We began deductively by defining and developing a concept that Peplau had named, but never specified—instrumental inputs—as a link between the abstract explanatory elements of the theory and the operational intervention activities. After defining the attributes of instrumental inputs, we analyzed narratives that nurses wrote about their interventions in the pilot projects that preceded the clinical trials. We identified all activities that fit the definition of instrumental inputs. These were collapsed into a final group of 38 interpersonal activities that captured the totality of ITN-congruent interventions. We then asked these questions: What nurse-generated interpersonal activities comprise the active ingredient of the intervention and how do these activities differ from other interpersonal interactions that occur between the nurse and the client? How does the nurse use the theory to structure an interpersonal intervention with a client? How can this intervention be quantified and documented in a manner similar to a task-based or procedure-based intervention? This article will summarize this analysis. The article will begin with a brief summary of the cumulative theory development work of the first author (L.S.B.) to date and then define and elaborate the concept of instrumental inputs in the context of ITN. Then, specific application of ITN to depressive symptoms will be made and issues raised in the analysis questions will be addressed. Illustrations drawn from the pilot projects and the 2 clinical trials will be presented to demonstrate the use of instrumental inputs. Finally, the article will describe the method of documenting instrumental inputs that we are using in the clinical trials of the ITN-derived intervention.

REVIEW OF THE THEORY DEVELOPMENT

Since 1989, the first author has extended Peplau's Interpersonal Theory of Nursing to guide intervention with clients with depressive symptoms. The development of the extended theory consisted of expanding some selected concepts from the work of Sullivan[24] on modes of experience, pattern integrations, and self-transformations[25] and specifying how Peplau's anxiety gradient[9] should be used in sequence to help clients change problematic thoughts, feelings, and behaviors.[16,17] Subsequent articles developed the concept of pattern[26] and demonstrated how the extended theory was operationalized for clinical use and home-based intervention.[18,22]

These articles developed the primary premise that anxiety is a *protective mobilization of energy in response to a challenge or threat to the self.* Anxiety is uncomfortable. In response to anxiety, humans are not passive and use the energy either to rise to the challenge or remove the threat, or, if not possible, to control the anxiety with security operations. Security operations change thinking, feeling, acting, body functions, role functions, and interpersonal relationships in ways that may or may not be productive and supportive of the person's own growth and "forward movement," the definition of health in this theory. Security operations may range from transient forms (relief behaviors) to more extended forms (self-transformations), or may emerge as repetitive patterns of interpersonal relationships (pattern integrations).[22] Enduring appearance of selected security operations may lead to their coalescence into distinct symptom spectra (eg, depressive symptoms) associated with ill health (failure of forward movement and growth).[18] Once enacted, the maintenance of security operations also requires energy. When the maintenance of security operations interferes with health, intervention is appropriate. Intervention is focused on redirecting energy from security operations and using it to develop

capacities, or knowledge and skill potentials, into competencies.[27] Competencies, or *the ability to use knowledge, understanding, and practical and thinking skills to perform effectively,* are developed through repetitive use. In stating that the one who does the work develops the competencies, Peplau emphasized that the client's potential for developing competencies would be hampered by the nurse "doing for" the client. In a departure from patriarchal care models, Peplau created a theoretically congruent reason why nurse and client should have separate and equal responsibility for the conduct of the therapeutic relationship.[27]

ITN specifies that an intervention is to be conducted within a special interpersonal relationship (the therapeutic relationship) with a clear purpose and distinct boundaries and phases. Through the therapeutic relationship, the nurse can help a client develop competencies that can be used to address challenges and threats to the self. Many of these challenges and threats arise out of interpersonal contexts in which energy in the form of anxiety is present, but cannot be effectively accessed and harnessed. The client can develop competence in using the energy of anxiety to address challenges and threats, to more effectively obtain interpersonal support, and to carry out critical life roles.

To do this, the nurse and the client must collaborate to create an interpersonal "envelope" in which the client can come to understand the challenges and threats to herself. This process always brings out the client's anxiety. With the help of the nurse, the client can use anxiety productively to approach these issues in an interpersonal context that is safe and promotes growth or forward movement. Interactions between the nurse and the client elicit security operations that can be mutually witnessed, mutually validated and changed, thus freeing the energy of anxiety and directing it toward challenges and threats. In this way, the therapeutic relationship becomes a "learning laboratory" for building competency. It is the responsibility of the nurse to create opportunities for the client to develop capacities into competencies. For this to occur, the nurse must enact a carefully sequenced set of words, actions, and activities that catalyzes the client's work. These are called instrumental inputs.

INSTRUMENTAL INPUTS DEFINED

The term instrumental input originated in the work of Peplau.[27] Peplau never defined the original concept but described the nurse providing instrumental input[27(p2)] verbally in the form of sustained investigative questioning. This process of investigation was itself instrumental in teaching the client a way of analyzing experience.[27] Peplau considered simple and direct language as the primary instrumental input.[9,27] Peplau's supervision of students included careful analysis of nurses' verbatim notes, followed by suggestions about how to reword their responses to clients.[5] This process introduced a scientific method of shaping verbal exchanges into therapeutic interventions. In addition, by pairing the thoughts, feelings, anxieties, fantasies, and other mental processes of the nurse with the verbatim dialogue, Peplau showed that the nurse's internal perceptions were data that could be added to other assessment data. For example, the nurse's thoughts and feelings could be used as cues to explore areas of the client's life:

. . . a client (mother of a small child) was talking about how her life was not what she had pictured. The nurse asked the client what her life would be like if she were happier. The client talked about going to school, working, having a car and a house. The nurse began thinking about how her own children might respond to the same question (they were about the same age as the client). As the nurse monitored her thoughts about her own children, the nurse realized the client had never mentioned being a mother at all. The nurse immediately explored that omission with the client. The client

identified that being a mother was an area where she felt inadequate and went on to explore critical issues about her role and image as a mother.

Peplau's systematic analysis of the nurse's internal perceptions also led the nurse to understand anxiety-laden issues and personal reactions to clients that interfered with the therapeutic process. The nurse could use self-awareness as a means to understand and control reactions, thereby making the interpersonal interaction strategically therapeutic and client centered (not nurse centered). For example,

. . . a nurse noticed whenever she approached the home of one particularly challenging client, she wished that the client weren't home. The awareness of that fleeting thought allowed the nurse to "check the feelings at the door," and then generate a cascade of behaviors—taking a deep breath to clear her head of judgments, deliberately focusing on the needs of the mother for her services, constructing a positive greeting—that decreased the nurse's own anxiety and provided an opening for positive interaction with this client. The client, who had consistently experienced negative reactions from significant people in her life, now could begin to reframe her own self-image from the reflected positive image provided by the nurse.

Peplau also indicated that the therapeutic intervention sequences originated in the nurse:

> Initially, it is the therapist who provides instrumental input which serve as stimuli to tap the client's capacities, in effect, to develop them into intellectual and interpersonal competencies (that) aid the client to seek his own answers, his own advice, his own inner controls and his own direction for the life that is his.[27(p3)]

Peplau noted that the sequence began with the nurse, suggesting that the theoretical correctness of an intervention could be documented through the analysis of the congruence between the nurse's intentions and what the nurse said or did. The therapeutic effect could be verified by observations of the client's responses, both verbal and nonverbal. For example,

. . . a nurse was working with a mother who was juggling the multiple demands of working two jobs and taking care of a young child with special needs. Despite these demands, the mother always managed to have clean clothes and hot meals for her family. The nurse sincerely remarked that it must be hard for this mother to manage so much in her daily life. While the nurse was talking, the mother shrugged her shoulders as if rejecting the nurse's empathic comment because it was too anxiety provoking (a security operation). The mother then quietly began to cry (a relief behavior) and melted her formerly rigid posture (nonverbal response). The client, for the first time, talked about some of her feelings regarding her present circumstances (verbal response). The mother's change demonstrated to the nurse that the intended therapeutic effect of the nurse's acceptance and understanding of the mother had occurred.

In our intervention studies, we have broadened the definition of instrumental inputs by defining them as *the identifiable units of energy that are passed from nurse to client in therapeutic encounters where the goal is to stimulate the client to develop new competencies*. By definition, instrumental inputs are *unidirectional*—going from nurse to client—and are *deliberate* and *theory-driven*. There are many forms of energy exchange in human relations and in therapeutic encounters. To identify the active elements of the intervention being tested, it is necessary to identify those activities of the nurse that have a distinct therapeutic intent. Our operational definition of instrumental inputs focuses on only the energy exchanges that originate with the nurse and deliberately ignores the reciprocal give-and-take between nurse and client and the effect of client feedback on the interaction. Focusing on these elements allows

Table 1. Typology of instrumental inputs

Category	Examples
Verbal content directed toward the client	Manifest content of spoken words
Nonverbal communications directed at the client	Gestures Facial expressions Inflections placed on words Silences
Strategic interaction techniques with the client	Selective reflection of client's words Selective self-disclosure by the nurse Demonstration followed by coaching of desirable behaviors by the nurse Staged interactions, eg, role-plays, rehearsals
Tangible inputs	Written or visual materials Objects given to the client as part of the therapeutic encounter Acts done by nurses on behalf of the client Physical touch

us to analyze each nurse action for qualities of deliberate theoretical intent and congruence with the theory. Most of the time, the nurse should be able to state how an instrumental input helps the client redirect energy from security operations toward developing competencies. An advantage of the deliberative process associated with instrumental inputs is that it demystifies the global (and often poorly specified) "therapeutic process." The repertoire of instrumental inputs used in a theoretically guided intervention can be captured as data measured in the same time period as client outcomes. As such, the impact of instrumental inputs can be documented and tracked over time with the endpoint of linking therapeutic interventions with client outcomes.

Instrumental inputs vary but can be organized into 4 general categories: verbal, nonverbal, strategic interaction techniques, and tangible inputs. Table 1 presents this typology and examples of each.

Regardless of the type of instrumental input, the nurse will keep the goal of developing competencies the same, but may change the form of the instrumental inputs depending on the client's capacities, the context, or the age or "phase" of the relationship. For example,

. . . the client talked about how her child's tantrums kept her from going places and socializing with others. During the first phase (orientation) of the relationship, the nurse developed a self-affirming statement for the client, "my nurse told me, stick with the plan, other people will understand, my child is growing up." In constructing the self-affirming statement (instrumental input: verbal content directed toward client) for the client, the nurse also relayed understanding of the client's situation that helped decrease the client's anxiety that the nurse would judge her. As the client used the strategy to lower her anxiety during the middle phase of the relationship (working phase), the nurse asked the client to rehearse selectively ignoring the child when he was having a tantrum (instrumental input: strategic interaction technique). Practicing during a session gave the client confidence to attempt the strategy independently. The client's success with this strategy was noted by the child's father who praised the client's new competency. In the final session (termination phase), the nurse brought

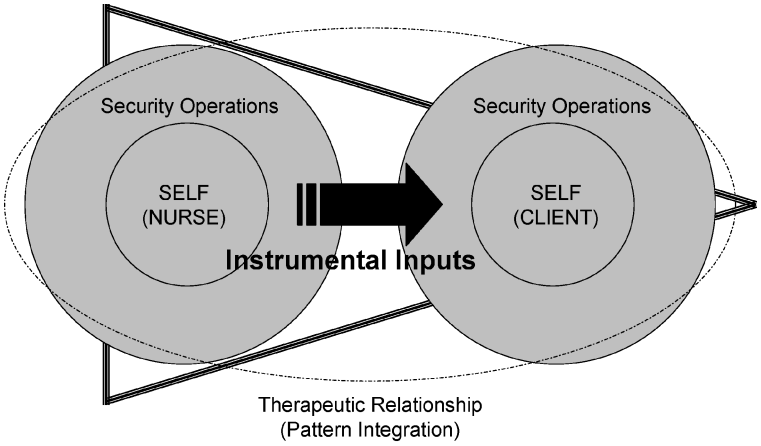

Figure 1. Theoretical model of instrumental inputs. ▷ indicates forward movement (health). Reprinted from *Nursing Clinics of North America*,[18] with permission from Elsevier.

"celebration boxes" (instrumental input: tangible input) for the mother and child. The boxes were filled during the session with written "reward" activities that the mother, child, and father could use in the future to celebrate together.

Figure 1 presents a model of instrumental inputs in the nurse-client relationship. The model is a revision of an earlier version[18] based on Forchuk's original portrayal.[28] The model depicts the unilateral origin of instrumental inputs in the nurse and at the same time, the forward movement of both the nurse and the client.

APPLYING THE CONCEPT OF INSTRUMENTAL INPUTS TO CLIENTS WITH DEPRESSIVE SYMPTOMS

A core process accompanying depressive symptoms is the erosion of self-efficacy. The client generally has a view of self-as-incapable that is consistent with eroded self-efficacy and well supported by previous unsuccessful interpersonal experiences.[16] In the therapeutic work with a client who has depressive symptoms, it is essential that that the nurse challenge this self view. Although people who have depressive symptoms often have had bad life events,[19] they may have further supported their beliefs in their own incapability by selectively stockpiling memories of actual experiences that fit the picture of incapability. The cognitive and behavioral form of this process has been well elaborated by Beck.[29] In interpersonal theory, this "filtering" of competence and function serves as a security operation, or an active, self-generated means of reducing anxiety. By maintaining a view of self as incapable, the client gains control over anxiety associated with significant others' negative appraisals by becoming the first and worst critic of the self. However, by maintaining the view of self as incapable, the client limits risk taking that might lead to growth and sacrifices the intense joy associated with being capable. To be therapeutic, the nurse uses instrumental inputs that provide an opportunity for the client with depressive symptoms to receive new information that self is capable. This is difficult! Without letting go of the security operation, the client cannot take the first step toward developing capacities into competencies. For example,

. . . a client with severe depressive symptoms complained of "losing time" when she became "worried." The client described becoming preoccupied with worries and then, at a later time, "coming to" with her child crying and pulling on her. The client would realize that as much as an hour had passed. The client identified that the episodes always

occurred in the same seat in the living room. In past discussions, the client had expressed a desire to be able to take a bath and put on skin lotion because this helped her to relax. The nurse asked the client to interrupt the losing time cycle by getting up and going to the bathroom or bedroom to put on lotion when she found herself sitting in the seat in the living room. By combining the interrupting behavior with a known soothing behavior, the client was able to let go of the security operation (losing time) and address her worries with problem-solving strategies she had practiced with the nurse. Within two weeks, the client reported that she was able to address her worries without losing time. By freeing up the energy the client put in losing time, the client had transferred energy to productive problem solving when she got worried.

Thus, intervention is focused on 2 targets: security operations that cause problems and the sources of anxiety that generate them. For change to occur, the client must be helped to release the energy that is being used to maintain security operations and redirect it toward removing the sources of anxiety that make them necessary. For example,

. . . a client would become anxious and immobile when the father of her two children would take the children to his new girlfriend's house without telling her where they were. The client learned to effectively confront the father about this behavior and negotiate a method of communicating that respected her need to know the whereabouts of her children without involving the new girlfriend. The intervention increased her sense of competency, reduced her immobility (security operation), and eliminated discussion of the new girlfriend which was not in her control and a source of anxiety.

How is energy released from security operations and redirected? The nurse must first establish an interpersonal relationship with the client and help the client objectify her experiences with problematic relationships and issues. There are many ways of creating instrumental inputs that help the client objectify experience—breaking it into smaller parts, talking about it, reading about it, naming it, drawing it, acting it out, watching others act it out, etc. Each of these acts draws energy from the security operation. This is the first step toward placing the security operation into syntax, that is, an "integrated" or "controlled" experience. However, as the client surrenders the security operation, his or her anxiety will rise. Because rising anxiety affects perception by "disintegrating" experience, it works against the process of objectifying and placing experiences into syntax. At the same time, anxiety is energy that can be useful to the client. What makes this process easier is that the therapeutic relationship is a special relationship that is built to handle this eventuality. Just as the client generates security operations in the self to manage anxiety, people enact security operations in relationships. These repetitive patterns or "pattern integrations" are functional and help hold relationships together by fitting the needs of one person with the needs of another person and by keeping anxiety from rising so high that it disintegrates the relationship.[16,17,26] Some pattern integrations are useful and others are problematic or damaging. The latter become the focus of therapeutic work.

The therapeutic relationship is a unique form of pattern integration because it is deliberately constructed and monitored by the nurse to build awareness of problematic patterns of interacting and to help move toward more healthy ones. Anxiety and security operations are generated in it, but instead of the energy going toward maintenance of the relationship, the energy of the nurse and the client are combined and directed *by the nurse* toward observing, understanding, and changing the client's security operations that create problems. Usually, in tackling a stressful experience, the client will experience anxiety and try to reduce it by integrating the relationship in ways that reduce anxiety. For example, a client might try to get the nurse to take control of solving the issue, or start an argument

with the nurse. This puts the nurse in a wonderful position to directly observe how the client behaves in relationships and if these are the same patterns that cause problems for the client. The nurse can thus help the client "see" her behavior and understand how to change it.

The nurse may use different forms of instrumental inputs—verbal exchanges, nonverbal processes, strategic interaction techniques, or tangible inputs—to catalyze this process. Every time the client approaches an anxiety-laden issue and is able to objectify it, manages anxiety with less-problematic security operations, and avoids enacting patterns that integrate the relationship in problematic ways, she gains capabilities that can be used again in other situations.

. . . a client would become angry and impatient with her child when intrusive, depressive thoughts about being rejected by the father of the child would occupy her mind. After establishing enough trust with the client to support a "negotiated alliance," the nurse worked with the client to alert her to the change in voice pitch and tone by making a visible sign that alerted the client that she was "losing it" (instrumental input: nonverbal communication directed at the client). The nurse helped the client connect her ruminative, angry thoughts with outbursts against the child. The visible sign helped the client "catch" herself in the act. Repeated instances of "catches" helped the client anticipate the nurse's signs, and, eventually, internalize the nurse's signal into her own repertoire of strategies to prevent outbursts at the child. Over time, the client used this alliance to build a deeper relationship with the nurse and develop a healthier pattern of relating to someone who was "in authority."

The nurse also provides instrumental inputs specific to the mental health focus. For example, in the case of the client with depressive symptoms, instrumental inputs can be fashioned to incrementally encourage development of the client's capacities while helping the client avoid failure (a source of anxiety). Considerable skill is required to do this! As noted previously, our current use of instrumental inputs could include a wide variety of elements. As the client uses the instrumental input, the energy of anxiety is harnessed and directed toward learning more effective security operations including forming more productive pattern integrations.

Since the client does the work, the client develops competence in these dimensions. The desired outcome is always the evidence of the client's new competencies that contradict the client's self-view of incapability. These are "witnessed" by the nurse and consensually validated (verbally) with the client. All along the way, the client's process is indicated by outcomes indicative of greater congruence ("syntax") such as "naming" (labeling) experience, organizing, categorizing, and ordering experience, and placing it in context of time and place. Eliciting the client's capacities and combining it with the nurse's instrumental inputs creates new competencies through interpersonal learning that changes the client's perceptions, behaviors, and skills. The next section will pose operational questions about how instrumental inputs are used in the client-nurse relationship, illustrated by clinical examples.

PRACTICAL QUESTIONS ABOUT INSTRUMENTAL INPUTS

How does the nurse know what security operations are troublesome to the client?

Obviously, the client is the first and last word on this matter. Security operations that the client identifies as problems are, without a doubt, primary. However, clients do not always have the capability to objectify and name their troublesome security operations. Since the initiation of the relationship may elicit anxiety, some of the most troublesome security operations may occur in the first contacts. The nurse needs to be alert and attend to the way in which the client starts out, observing and noting parallels between the

client's report of her troublesome interactions with others and the nurse's direct experience. At an opportune time (and this is the "art" of the endeavor), the nurse notes the similarities in a nonconfrontational way and also encourages the client to observe the parallel. If the client can engage with the nurse at this point, the work can focus on the objectified problems in relationships.

When the nurse arrived for the first visit, the mother was talking on the telephone. The mother hung up and said to the nurse, "I just gave my savings account number to a man who told me that he can resolve all my debt. Did I do the right thing?" As the work evolved, this pattern of giving responsibility to others to solve her problems was a repetitive security operation used by the client that created many problems. In the first few minutes of the first interaction, the client had used it twice—with the telephone solicitor and with the nurse.

How does the nurse shape the instrumental inputs?

Several options may be considered by the nurse:

- *Instrumental inputs that guide more positive actions but are elaborationson actions that the client already uses*. By building new competencies on older ones, the client uses operative strengths and achieves positive results with minimal use of energy. In the case of the client with depressive symptoms, this is desirable because the client is more likely to repetitively use an action that is familiar and one that does not require a great deal of energy for learning. By keeping the actions realistic and practical, the result is an action that is new but one that feels "natural" to the client. For example,

  . . . a nurse questioned a mother about activities she previously enjoyed before becoming depressed. The nurse used this information to help the client make the first step toward interrupting a downward cycle of sadness and self-seclusion (security operation) by engaging in an activity she previously enjoyed—dancing with her children—when she felt sad or anxious (instrumental input: verbal content directed at the client).

- *Instrumental inputs that catalyze different but more effective actions than the problematic ones typically used by the client*. The actions may be demonstrated or "rehearsed" so that the client can shape the new and strange actions and make them their own. If needed, the nurse can make an outcome happen so that the client experiences it.[22] If the client has never seen an interaction that successfully accomplishes the goal, an instrumental input that guides the client to "practice" the new interaction can compensate for the gap. By following the practice interaction with a discussion of the action, the nurse attaches words to the experience. Putting a name to the experience helps the client relocate it, repeat the experience and, through repetition, claim it.[27] For example,

  A mother expressed difficulty in negotiating with her husband to resolve conflicts about completion of parenting work. Then the nurse began to talk about when the next meeting could take place. The nurse informed the client about the nurse's obligations and time constraints and then assisted the client to review her own obligations and time constraints. Once the next meeting time had been negotiated, the nurse then asked the mother, "How did we do that?"(instrumental input: strategic interaction).

- *Instrumental inputs that guide new actions in situations that the client encounters often.* By taking a "frequent problem" approach, the nurse can align with the client against recurring sources of anxiety. These are good targets

because they happen frequently and offer lots of chances for practice, repetition, and competency-building. Minor, as opposed to major, situations are good choices because failure will not be catastrophic and anxiety will be lower. For example,

A client was immobilized by fears of her children being harmed when she was separated from them. The client reacted to simple separations from them (going to another room in the house) with depressive ruminations and anxiety. The nurse "rehearsed" a physical separation with the client in her home and then physically accompanied the client while she actually left the child in an adjoining apartment to attend an Early Head Start mothers' meeting (instrumental input: strategic interactions and tangible inputs).

- *Instrumental inputs that tackle the most troublesome problems head on.* The nurse and client may be forced to take on these problems because they are compelling (as in domestic violence). In such a case, instrumental inputs may be created incrementally to produce "staging." *Staging* is the deliberate sequencing of interpersonal situations so that the client can practice with easier (less anxiety-provoking) problems or people while gradually moving closer to the "big" problem. As the client does this, learning is transferred to harder situations, allowing new competencies to ripen for use with the most difficult and anxiety-producing life issues.

A nurse helped a mother stage a confrontation about the issue of past domestic abuse with her husband by first making social conversation with her husband on a "date." When the client was able to do that comfortably, she successfully addressed the issue of past abuse with her husband (instrumental input: verbal content directed at the client and strategic interactions).

How does the nurse know which mode (verbal, nonverbal, strategic interaction, tangible) to choose for the instrumental input?

The nurse builds on the client's operative strength. Therefore, careful observation and assessment of the client should reveal which mode the client uses most proficiently. Starting from a point of strength in the client will often tip the balance toward success (eg, the mother who already knew that putting on lotion made her feel better). Conversely, the nurse may choose to move to a mode that the client does not use often to awaken capacities that have been dormant (eg, the mother who was coached through making the next appointment).

How do the instrumental inputs create change?

By watching the nurse do the new action, by observing that the action has a more desirable outcome, by practicing the new action, and by achieving desirable outcomes—the client transfers energy in the form of anxiety and energy bound in security operations into learning new productive patterns of problem solving, relating to others, acquiring support, and managing resources. The nurse must always guide the client toward figuring out her own change. Although this process requires that the nurse tolerate more anxiety, allowing the client to flounder and explore ultimately makes the client the author of her own process of change. The nurse is there to act as support and cheer the mother on, but also acts to provide a safety net if the action becomes too scary for the mother to achieve. As competence increases, the client is able to repeat the successful interaction and build confidence and self-efficacy.

How does the nurse structure the incremental change?

The nurse breaks the desired action or interaction into smaller, more manageable units and sequences the units into steps that lead

to a specific outcome. The nurse creates a way of demonstrating each unit, and then supports the client in the learning process, providing positive appraisals, corrective input when needed, and attention. The client incorporates the new learning in units and the nurse helps the client elaborate it to other situations. The client begins to see cause and effect and ties a positive appraisal to their own actions.

USING INSTRUMENTAL INPUTS IN INTERVENTION RESEARCH

As described in the previous sections of this article, interpersonal intervention that is based on interpersonal theory is not done by accomplishing discrete tasks but by conducting systematically sequenced interactions in which the nurse helps the client organize, shape, and retain desirable perceptions or behaviors. The client can gain competence in using desirable perceptions and behaviors, elaborating them, and applying them, to other situations. As such, outcomes are also not discrete but expressed as improvements in the perceptual, expressive, and behavioral patterns that have been problematic to the client. Because successful outcomes of interpersonal intervention are manifested as emerging patterns of positive change, the impact has been difficult to measure. The capacity to measure both the intervention delivered and the desired outcomes is essential to showing the efficacy of any intervention.

We are currently using instrumental inputs in 2 research projects testing a short-term, home-based interpersonal intervention delivered by psychiatric-mental health advanced practice nurses to low-income mothers and newly immigrated Latina mothers who have significant depressive symptoms. The intervention is designed to enhance a federal child enrichment program—Early Head Start—offered to the infants and toddlers of these mothers. By assisting the mothers to remain in Early Head Start, manage the depressive symptoms, improve their mothering and social support, and solve difficult life problems, we anticipate that the benefit of the nursing intervention will extend to the child as well.

We are using instrumental inputs in all of the ways we have described previously, systematically documenting when they are used in the therapeutic relationship and in relaying the substantive content of the intervention. The intervention is standardized so that every mother receives similar content. However, the way in which the nurses deliver that content to mothers is individualized and may vary in presentation according to which instrumental inputs the nurse and mother choose. Instrumental inputs are described and recorded by the nurses on a data form. To capture the dimension of individualization, nurses are describing how they are delivering and shaping the standardized content as well as completing a linear note that describes the sequence of the events at each session. Core instrumental inputs used universally by the nurses (eg, physical touch, self-disclosure) are defined to standardize their use by nurses. Consensual agreement on the definitions of these core instrumental inputs will allow comparison across different mothers and different nurses.

The nurses all meet by telephone weekly to discuss each intervention session in a peer supervision model. The principal investigator and coinvestigator participate in the call and the principal investigator completes detailed field notes during the call. This systematic method of documenting the intervention is producing data that can be linked in quantitative analysis to outcome measures completed by the mothers. By linking the intervention delivered to the outcomes that occur, we hope to supply evidence for cause and effect between intervention and outcomes.

CONCLUSION

This discussion has focused on the use of instrumental inputs as a way of operationalizing an extension of the ITN. The systematic way in which these units of energy are being

represented, consensually validated, and standardized for research purposes will link the most abstract elements of the theory to the moment-to-moment actions and words of the nurse. Although this process may seem to be a highly refined one that can be used only in a research context, nurses who use this theory to assist clients in making changes in their interpersonal interactions will find that the process increases the scientific precision by which interventions are delivered. Greater precision should increase the effect of the intervention that, in turn, will lead to better client outcomes.

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