

MODES OF RESOURCEFUL BEHAVIOR: A HOLISTIC APPROACH
TO THE ADAPTIVE PROCESS WITH IMPLICATIONS FOR
OCCUPATIONAL THERAPY INTERVENTION

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ABSTRACT

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Modes of Resourceful Behavior: A Holistic Approach to the Adaptive Process with Implications for Occupational Therapy Intervention

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Through three integrated studies, the concept of modes of resourceful behavior was explored. In the first study, an instrument that identifies modes of resourcefulness was developed and went through the content validation process. Methods of tool development and validation described by Benson and Clark (1982) were used. Occupational therapy clinicians and academicians were consulted on categorization of instrument components. Judges outside the field of occupational therapy made recommendations regarding test structure and presentation.

In the second study, a newly developed instrument, The Needs Scale (Figure 5), was piloted and issues of construct validation were addressed. A pool of fifty-two occupational therapy students involved in the process of making adaptive equipment were used as subjects. A chi-square analysis determined the relationship of narrative student data to instrument scores without significant outcome. Limitations such as insufficient narrative data, provision of resources by instructors and easy access to peer and instructor support in the making of adaptive equipment confounded the study.

During the third study, data gathered from interviews with clients and therapists in a home health setting were compared with results from The Needs Scale. Grounded

theory methods of data analysis (Strauss and Corbin, 1990) were used. Emergent themes included the relationship of modes of resourcefulness to safety, trust, and client motivation as well as critical thinking and client adaptation processes.

The results of this research added breadth and depth to the information previously gathered on the concept of resourceful behavior. Suggestions for future studies include construct validation of The Needs Scale, focus on the nature of emotional and spiritual modes of resourcefulness and mode configurations.

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CHAPTER I

Statement of the Problem and Specific Aims

Introduction

The concept of resourcefulness, not an area previously explored in occupational therapy, has been a subject of study beginning with the field of psychology for approximately the past twenty-five years. Studies initially formed out of research done on cognitive-behavioral modification and subsequently, several definitions of resourcefulness have risen. One popular definition by Rosenbaum (1990) refers to resourcefulness as an individual's ability to regulate emotions that might interfere with the smooth execution of a target behavior. Overall, research on resourcefulness has focused on an individual's ability to cope emotionally with challenges/adversity.

While occupational therapy has not researched the concept of resourcefulness per se, it would appear, on the surface, that an understanding of resourcefulness as a concept holds value for the practice and profession of occupational therapy as a whole. Both resourcefulness and occupational therapy are concerned with the adaptive nature of an individual in dealing effectively with the predicaments of daily living.

The core values of the profession of occupational therapy includes the belief that individuals are engaged "in a continuous process of adaptation throughout the life span" spurred on by both internal and external motivations. Additionally, the values reflect a belief that occupational therapy provides a role in helping others "build on his or her

unique attributes and resources” (American Occupational Therapy Association, 1996, pp. 124-125).

Occupational therapy, by definition, considers itself to be a holistic practice. Thus, taken into consideration are not only the emotional aspects of an individual, but the physical, social, and more recently the spiritual aspects of the human experience (Collins, 1998). In order for a study of the phenomenon of resourcefulness to be fully understood, it should as well require a holistic approach in the research process.

While the study of the relationship of emotions to human behavior is beneficial to the field of psychology, it alone is not sufficient to cover the breadth and depth of human phenomena that occur as examined through the field of occupational therapy. Patients who receive occupational therapy services experience a continuum of challenges/adversities in several realms and subsequently cope with those challenges/adversities by a variety of means. This seeking from within and without to problem solve or cope with a particular situation deserves exploration.

Background of the Problem

Many theorists in occupational therapy consider adaptation to be an interplay of person and environment (Dunn, Brown & McGuigan, 1994; Dunning, 1972; Howe & Briggs, 1982; Kiernat, 1982; Letts, Law, Rigby, Stewart, Cooper & Strong, 1994; Montgomery, 1984; Nelson, 1988, 1996; Schkade & Schultz, 1992). The philosophy of occupational therapy acknowledges the ability of the individual to influence his own mental and physical health as well as his social and physical environment (AOTA, 1996).

The theory of Occupational Adaptation (Schkade and Schultz, 1992) acknowledges that the occupational challenges that occur in life are impacted by a desire, demand, and, press for mastery. Thus, an individual comes together with his environment and adapts in response to the challenges presented. Likewise, resourceful behaviors are responses to the occupational challenges placed on an individual. The individual connects with his environment in an attempt to solve problems and make changes. A broadened understanding of resourceful behaviors will increase the profession's knowledge base of the adaptation process.

Statement of the Problem Situation

While previous works in the fields of psychology and nursing have addressed the psychological aspects of resourcefulness and, to some degree the social aspects, none has provided a holistic approach to addressing the process of resourcefulness. Indeed, the holistic nature of occupational therapy with its attention to the biological, psychological, social, and spiritual aspects of the individual broadens the perspective of the concept of resourcefulness.

The biological, psychological, social, and spiritual aspects of an individual can be seen as preferred modes of getting needs met; much like the "preferences" described by the Meyers-Briggs Type Indicator (Meyers & Meyers, 1990) wherein an individual's preferences for introversion versus extroversion, judging versus perception, sensing versus feeling, and thinking versus perceiving are identified. This identification of a preferred mode is not for the purpose of determining which preference is better or worse or to say that someone has a "good" or "bad" personality; it is to identify a direction

toward which an individual leans. It is possible that individuals also have preferred modes of facing adversities/challenges and getting their needs met. It is important that as occupational therapists we tap into a clients' strengths and work with them through the course of therapy. To do otherwise may cause us to work in opposition to the natural form of an individual's drive and thus, make the therapeutic process unnecessarily frustrating for both client and therapist.

Generally, what brings a client to occupational therapy is the experience of some form of trauma, challenge, or adversity. By the very nature of their trauma or situation, patients are continually required to switch from Plan A to Plan B. Plan A, which may have been a more habitual and/or easily accessible response may no longer be possible or available. Likewise, understanding what motivates an individual to engage in switching to Plan B could encompass an entire line of study on its own. In essence, if the problem was of a nature that the individual could address it independently, the services of occupational therapy would not have been sought.

Thus, the patient comes to therapy in a dependent state. Yet, the goal of occupational therapy is to bring the individual to a state of maximal independence relative to their situation. Our intention, ultimately, is to make ourselves obsolete to the needs of the patient. Embedded within the culture of occupational therapy, the overall goal is for the patient to be solely reliant upon their own self and their own world of resources.

We want the patient to generalize from what they have learned in a clinical setting so that they can masterfully address future challenges, problems, and adversities that will

confront them in daily life. What we do, essentially, is cultivate resourceful behavior. But, are we doing this adequately and are we focusing on the most meaningful acts? How can we be if resourcefulness has not been a previous area of study in occupational therapy? The field of occupational therapy needs to study resourcefulness to broaden the knowledge base of knowing how to most effectively help others to help themselves.

It is important to note, however, that the concept of resourcefulness not be viewed as linear or as existing in isolation, as it is both a culturally and historically specific notion. Thus, in studying and cultivating resourceful behavior in individuals, the contextual uniqueness of the person and the situation with consideration to chronology, developmental stage, life cycle, disability status as well as physical, social, and cultural aspects (American Occupational Therapy Association, 1994) must be acknowledged. A study of resourcefulness from the holistic perspective of occupational therapy may reveal cultural differences in getting needs met as well as changes in approach to resourcefulness relevant to life stages and environmental changes.

The Relationship of Resourcefulness to Adaptation

The field of occupational therapy embraces the concept of adaptation as a foundation from which to build practice and research because it embodies salient features that are manifested through individual growth and progress. Ultimately, occupational therapy seeks to understand ways to enhance the adaptation process in order to bring about optimal occupational performance. In support of the need for research in such areas as resourcefulness, Nelson (1988) notes the importance of research that focuses on the structure of the environment and how it may lead to predictability in human

performance. An understanding of such predictabilities related to resourceful behaviors may allow for therapists to design more individualized and more effective treatment interventions that reach and perhaps surpass desired outcomes.

Other Considerations

Numerous “vulnerable” populations who receive occupational therapy services may be identified as “at risk” in terms of getting their needs effectively met through the therapy process. One of the impediments to effective treatment comes from limitations in resources. These limitations in resources may come in the form of finances, social support, or some other form. In addition, therapy is often prescribed for a limited period of time, after which the patient is left to their own to “make do” with what they have despite having limitations in resources.

Therapists are also often faced with limited resources in their attempts to provide quality patient care. Limitations in resources for a therapist may be physical in nature, such as equipment, or it may be less tangible, such as time limitations available to treat a particular diagnosis.

The process of giving and receiving treatment and of looking down the road of life beyond the confines of the treatment experience requires resourcefulness on both the part of the therapist and the client/patient. Gaps in services can potentially occur when there are limitations in resources. These gaps can lead to frustration and feelings of hopelessness on both the part of the patient and the therapist. Alternatively, these gaps may lead to a search for alternate methods to get needs met through resourceful behaviors. The successful/unsuccessful interplay of behaviors that occur in this process

of therapist/patient collaboration in treatment merits further research. An analysis of such a process may reveal opportunities to improve treatment dynamics and thus improve treatment outcomes.

Purpose of the Study

The field of occupational therapy is continually seeking understanding of the impetus driving human behavior. An understanding of the concept of resourcefulness has the potential to lead to more efficient, effective, and meaningful treatment, and can ultimately improve therapeutic outcomes.

In tapping a client's modes of resourceful behaviors, practitioners can work in support of an individual's preferred system of coping and can design treatment in a manner that enhances optimal responses.

By studying resourcefulness as a mode of human adaptation, the field of occupational therapy may overcome some of the obstacles that have plagued practice. For example:

- 1) Why do some patients make decisions dealing with challenges/adversity that seem in contrast or in opposition to the goals of therapy?
- 2) How is it that some individuals seem to excel at adaptation and problem solving with scant resources while others who have access to innumerable resources fail?
- 3) And, how can therapists identify and work with a patient's mode of coping in therapy to promote more effective and satisfying outcomes?

These and other questions merit consideration that could be answered through a comprehensive study of the concept of resourcefulness.

CHAPTER II

Background and Significance

Theoretical Foundations for the Concept of Resourcefulness

Resourcefulness is not new in terms of concept or human experience; people have been resourceful since the beginning of time. Yet, the study of resourcefulness by scientific means has occurred only over the past 25 or so years. The initiative toward study in this area has been led by the field of psychology (Rosenbaum, 1980, 1990; Rosenbaum & Yaffe, 1983) and more recently joined by nursing (Zauszniewski, 1995). While the lay world would define resourcefulness in terms of making do with what one has (McBride, 1999) there are a variety of interpretations of the term resourcefulness in the scientific /professional world. So, what exactly does resourcefulness mean and how has it been defined scientifically?

Exploring Current Definitions

By looking at some historical and cultural origins, we can learn much about the definition and nature of resourcefulness. For example, the ancient characters of the Chinese language are comprised of a series or combination of pictographs or ideographs. The Chinese symbol for resourcefulness is considered to be a “logical aggregate” of the meaning of two characters brought together to create a new meaning. The first character “zhi” represents the concepts “to scheme, or to strategize”. The second character “mou” signifies “knowledge”. Thus, “zhimou” means to scheme or strategize with one’s

knowledge (Harbaugh, 2000). *Merriam Webster's Collegiate Dictionary* (1996) defines resourceful as, "able to meet situations; capable of devising ways and means " p. 997.

Much of the current research and theoretical base on resourcefulness stems from work done in cognitive-behavioral therapy wherein a client enters treatment with feelings of hopelessness and helplessness and converts these feelings from what is determined to be "learned helplessness" to learned resourcefulness" (Meichenbaum, 1990).

Meichenbaum points out that there has been a shift in the theoretical focus of helplessness over time; in that it is not due as much to the external events or environmental factors which surround an individual, as it is due to the individual's internal mechanisms for dealing with the event or factors (1990). The concept of helplessness, as being a learned behavior, developed from studies produced in the 1970's wherein subjects were placed in situations beyond their control which ultimately resorted in helplessness. Thus, by being placed in such a situation, they learned that despite their responses, the situation was out of their control (Rosenbaum, 1990).

The idea behind learned resourcefulness is that if an individual can learn to be helpless, then they can also learn to be resourceful. In 1983, Rosenbaum and Yaffe defined learned resourcefulness as a repertoire of behavioral and cognitive skills which allows an individual to regulate internal events, i.e., emotions and cognitions, that might otherwise interfere with the smooth execution of a target behavior. This defines the experience of learned resourcefulness as one that is an entirely internal experience. In contrast, Rachman (1990) defined resourcefulness in terms of an individual's ability to utilize personal and social resources for successfully dealing with problems, especially

those with elements of novelty. He is careful in his use of the term “resourcefulness” as opposed to “learned resourcefulness” as he believes that if it is understood that resourcefulness can be nothing but an acquired skill then there is no need to apply the adjective. While Rosenbaum’s definition deals solely with an individual’s internal occurrences, Rachman’s definition, in addition, explores the possibility of utilizing resources outside of the self.

From the field of nursing, learned resourcefulness is defined as “a personal characteristic acquired through interactions with others and demonstrated in one’s abilities to independently manage daily activities” (Zauszniewski, 1995, p. 14). Nursing studies on resourcefulness have refined the definition many times to include such concepts as flexibility and adaptability in controlling one’s mindset; self evaluative skills; perception of one’s ability to manage adversity; self-help in relation to role performance; and an acquired characteristic that attains, maintains, and regains health (Zsauszniewski, 1995).

While learned resourcefulness is a method of coping, not all coping is considered learned resourcefulness. Learned resourcefulness is differentiated in nursing from coping in three ways: 1) in learned resourcefulness, the perception of internal stress precedes the experience of external stressors, 2) appraisal of coping resources and assessment of a stressful situation are not components of learned resourcefulness, and 3) learned resourcefulness, in relation to problem-solving, is used to eliminate or decrease the negative effects of such internal processes as thoughts, feelings, and sensations (Zsauszniewski, 1995).

Schuldberg (1993), however, ascribes to an all encompassing definition that he calls “personal resourcefulness” which includes the concept of coping as well as learned resourcefulness:

Thus, personal resourcefulness represents a multifaceted and componential view of adjustment and outcome, and refers to motivation and ability to engage in context appropriate adaptive behavior related to the constructs of coherence, competence, coping style, ego-resiliency, ego-strength, hardiness, invulnerability, learned resourcefulness, mature defense, resilience, resistance to psychopathology, stress resistance, and others (p. 142).

Related Terms and Issues

French, Rogers, and Cobb (1974) consider a direct relationship between the person and the environment. They define coping both in terms of environmental mastery (which involves changing the environment) and adaptation (which involves a change in the objective person). They believe that it is some form of external deprivation that induces a person toward motivation. The magnitude, importance, immediacy, and duration are dependent on the individual’s perception of the deprivation. Thus, deprivation becomes relative as does the individual’s motivational response.

Likewise, Ittelson (1976) explored the man and his environment equation and determined that a dichotomous relationship exists. Individuals are not only impacted by their environment, but individuals are also the creators of their environment.

Lazarus (1984) also looks at the impact of the environment on the individual and the individual’s ability to deal effectively with the environment. He explores stress in

terms of the quality and intensity of challenges, the resources and vulnerabilities of the individual, and environmental conditions and their impact on the situations of daily living. Ultimately, he defines stress as “ an inharmonious fit between the person and the environment, one in which the person’s resources are taxed or exceeded, forcing the person to struggle, usually in complex ways, to cope” (p.376).

Moos (1984) pictures an integrative conceptual framework that includes both an environmental system and a personal system. His framework leans toward a belief in person-environment matching which can take place through consideration of personal preferences and environmental provisions as well as personal competence and environmental demand.

Mechanic (1974) employed a perspective differing from the traditional approach that environmental mastery comes from intra-psychic mechanisms which individuals use to control, psychologically, environmental stimuli. Rather, his perspective focuses on an individual’s ability to directly impact the environment through contact with social supports. Thus, an individual’s ability to adapt is seen through his interactions with others. Nadler (1990), as well, focused on the interpersonal rather than the intrapersonal aspects of coping. He does say, however, that there are some risks taken by the individual who seeks out others in order to cope with adversity such as “admitting failure and inadequacy to self and others” (p. 130).

Self-control, self-efficacy, and self-direction are considered to be interactive factors that are inherent to the process of learned resourcefulness. Self-control involves the delay of gratification and the use of positive self-statements; self-efficacy relates to a

belief in one's ability to cope with adversity; and self-direction involves both problem-solving strategies and planful behavior (Zsausznievski, 1995). Bandura's (1977) early work on self-efficacy explored an individual's ability to initiate, maintain, and follow through on coping.

White (1974) sees adaptation as an umbrella term which includes mastery, coping, and defense. He defines the term adaptation further by use of "military metaphors" such as, "delay, strategic retreat, regrouping of forces, abandoning of untenable positions, seeking fresh intelligence, and deploying new weapons" (p. 50). All of these terms bear resemblance to the process that occurs during engagement of resourceful behaviors. White (1974) does go on to say that, "Strategy is not created on the instant. It develops over time and is progressively modified in the course of time" (p. 59). Similarly, resourceful behaviors are not instantaneous, but rather are learned and developed over time.

Antonovsky (1990), in ascribing to a salutogenic rather than a pathologic model of health and coping, wherein stress can be determined by an individual to span a continuum from positive to negative, refers to a concept he calls "a sense of coherence" (SOC). This "sense of coherence", while not labeled as resourcefulness per se, underlies some basic meanings relative to resourcefulness. First, he acknowledges that there exists in our world a concept of "generalized resistance resources" (GRR) which he defines as money, ego strength, cultural stability, social supports, etc. These GRR help individuals remain healthy despite the circumstances of stress. In addition, the SOC contains three core components: 1) Comprehensibility-wherein stimuli from an individual's

environment holds a somewhat structured, predictable and explicable nature; 2) Manageability-wherein resources are available to meet the demands of the proposed stimuli; and 3) Meaningfulness (which he believes to be the most crucial)-wherein the demands and challenges are worthy of investment. Thus, an individual assesses the self, the environment, and the stressor in order to cope, adjust, adapt, or problem solve.

Another term associated with the concept of resourcefulness, in terms of looking at an individual's relationship to stress is hardiness (Kobasa (1979; Orr & Westman, 1990). Hardiness is believed to be a personality trait which, again, allows an individual to cope effectively with a given stressor. Its inherent concepts of commitment, control, and challenge bear comparison to Antonovsky's comprehensibility, manageability, and meaningfulness concepts and are central to understanding how hardiness manifests itself in an individual. Commitment refers to one's own belief in the self and in what one is able to do thus, involving the self fully as a social being in one's life space. Control refers to an individual's belief that they can have influence over a course of events. Lastly, the concept of challenge acknowledges that change as opposed to stability is a normative process in life. Thus, in hardiness, the individual assesses the self, the self in relation to the environment, and the self and the environment in relation to circumstances.

Resilience, although differing from resourcefulness, does share some commonalties. Resilience, while not necessarily an acquired trait, is an adaptive response to adversity. Resilient individuals seem to have an internal mechanism of self and environmental assessment which allows them to "take stock" of a situation and move forward with what remains.

From an existentialist point of view, individuals find meaning in adversity and use this as a starting place from which to move forward (Hoehn-Saric, Frank, Hirst & Seltser, 1981; Henderson & Bostock, 1977). An example of this is seen in the writings of Viktor Frankl gleaned from his internment as a prisoner in a Nazi death camp. Amidst the horror of war he was able to not only face adversity, but to look it squarely in the eye and find opportunities for self-growth. From his classic work *Man's Search for Meaning* he gives us insight into finding meaning in adversity.

What man actually needs is not a tensionless state but rather the striving and struggling for some goal worthy of him. What he needs is not the discharge of tension at any cost, but the call of a potential meaning waiting to be fulfilled by him (1963, p.166).

Exploring Current Research Trends

The concept of resourcefulness as well as related concepts have been applied and studied with regard to groups of individuals as well as contexts and other concepts. Erickson (1996) gathered an oral history of the career of a public health nurse that included numerous examples of her sensitivity to resourceful coping while working in a community environment. This particular nurse drew upon existing physical resources and created resources through the use of family and community support systems.

Eyre-Brook (1986) found that relying on their own resources rather than those donated from more developed nations was more beneficial in the long-run for rehabilitation in developing countries given a certain set of conditions. For example, if a more technologically advanced piece of equipment breaks, there may be nothing

available in the environment fix it. Yet, if something that they have fashioned from their own environment breaks, such as bamboo crutches, developing countries have the physical resources readily available to fix it. In this way resources are spread further and practitioners can meet the needs of man more inexpensively.

Frederick (1990) looked at what motivates individuals who are under severe stress to come toward constructive action. He concluded that stress cannot be considered in isolation, but that it includes both the individual who experiences the stress as well as the source of the stress. In addition, the individual who responds to stress with positive results may in fact immunize themselves from the negative effects of future stress.

Miller (1990) focuses on the cognitive preferences that an individual might take in the coping process. In particular, the concepts of monitoring and blunting were explored. Monitoring refers to an individual's tendency to control an adverse situation through a constant assessment and gathering of threat-relevant information, while blunting refers to a cognitive avoidance of threat-relevant information. Research in this area revealed a tendency for individuals to switch from one mode to another depending on situational or individual consideration.

Components of Resourcefulness

From the literature we can discover several essential components which comprise resourceful behaviors. First, some form of adversity or challenge must exist (Hoehn-Saric, Frank, Hirst & Seltser, 1981; Henderson & Bostock, 1977; Frankl, 1963) There must be a catalyst by which resourceful behavior is set in motion. This challenge/adversity seems to come in the form of some problem to be solved or some need that

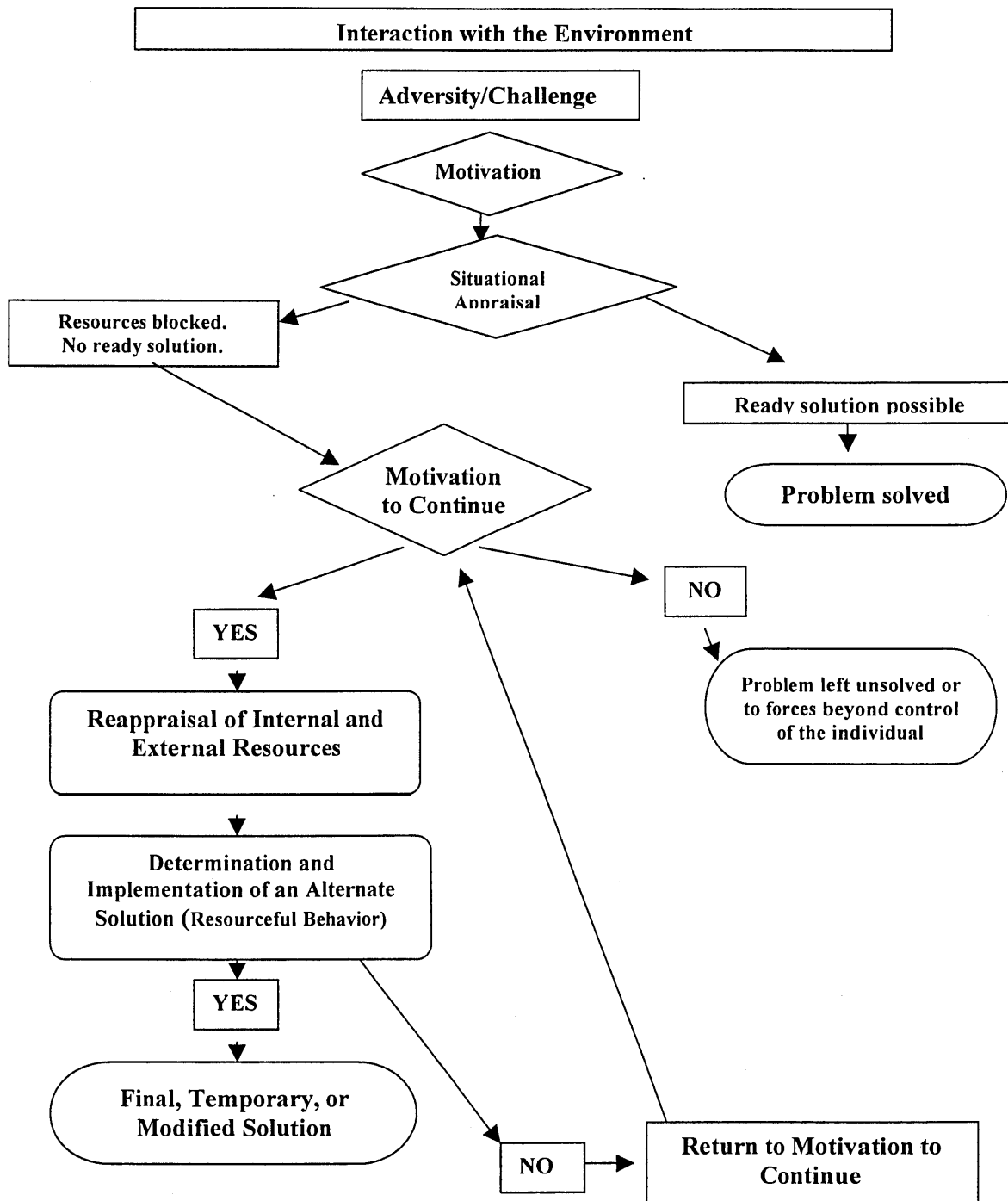
must be met. These challenges/adversities most often come from an individual's interaction with the environment (French, Rogers & Cobb, 1974; Ittelson, 1976; Lazarus, 1984; Mechanic, 1974; and Moos, 1984). The environment is not only vast but also contains physical, social, and cultural characteristics. More specifically, the environment can comprise institutions, groups, political and economic entities, agencies, tools, and individuals, to name only a few.

Secondly, a first appraisal of the situation reveals that the most customary means of solving the problem are inaccessible, blocked, or not available in the immediate environment and another resource must be called upon. At this point, the person considers whether or not they are in jeopardy of not getting their needs met (Lazarus, 1984). Hence, the need for resourcefulness. Rosenbaum (1990) identifies this process as "primary appraisal" wherein an individual evaluates the desirability/undesirability of the disruption occurring in their life and if it is determined that the problem is "threatening" then a self appraisal is made of what to do to reverse any adverse effects (p. 6).

Third, a desire or motivation to address the problem surfaces. This motivation is crucial to the calling forth of resourceful behavior, otherwise the problem is left unsolved by the individual or is left to forces outside of one's control. Fourth, some form of reappraisal is made of the problem situation by the individual. This reappraisal constitutes scrutiny of internal resources available for dealing with the problem and may involve a reappraisal of possible resources available in the environment. Finally, an alteration to the problem is brought forth to the situation by the individual which may include a final solution, a temporary solution, or a modified solution. See Figure1. A

Figure 1

The Resourcefulness Process



final solution is one in which no further action is required. A temporary solution meets the demands of the moment but will require intervention at some future point in order to adequately meet the demand over time. And, a modified solution is an adjustment to the primary solution that would have occurred had the resources been readily available.

Comparison of the Components of Resourcefulness and Occupational Therapy Literature

The Environment. In considering the relationship of the environment to the individual, Dunning (1972) explored the field of environmental psychology and from that developed what she terms “The Environmental Grid”. Situated within this grid are the components of space, people, and task that are further defined by givens, the possibility for interaction, and preference. Givens include task expectancies, task stimulation and the availability of objects in the environment, while the possibility for interaction and preference both concern the response of the individual to the environment. She believes that man is one of several components in his environment and that he cannot be separated from his environment. Through engagement in tasks, mutually satisfying goals between the individual and the environment are accomplished.

Tickle & Yerxa (1981) performed a study with nursing home residents in which they identified their need satisfaction based on a tool derived through the concepts established by Maslow’s hierarchy of needs. From their study, they determined that maintenance of health and quality of life are dependent on a whole spectrum of biological, psychological, and social needs and that client perception of the environment can affect treatment adherence and progress.

Gage, Cook & Fryday-Field (1997) considered Maslow's hierarchy in their research. They performed a reconfiguration of Maslow's hierarchy and created an occupational hierarchy which includes (from the bottom-up) self-care, home management, work, leisure pursuits and self-fulfillment. In addition, they identify a variety of resources from which an individual can satisfy their own needs, including intrapersonal, interpersonal, services, and adaptive devices/techniques.

Nelson (1988) explored the nature of occupational form which is a "pre-existing structure that elicits, guides, or structures subsequent human performance" p. 633. Occupational form includes two dimensions: 1) the physical stimuli in the immediate environment (materials, objects, location, human context, temporal context) and 2) the sociocultural reality. From occupational form the individual is able to interpret his environment from his own perspective; the process is not deterministic.

Dunn, Brown, & McGuigan (1994) believe that there is an interrelationship between the individual and the environment and that performance cannot be understood outside of context. They identified several specific treatment strategies employed by therapists which include altering and adapting the environment. They believe that how an individual performs in their natural environment will differ from how they might perform in a contrived (clinical) environment. Likewise, Letts, Law, Rigby, Cooper, Stewart & Strong (1994) conceive the environment as consisting of physical, social and cultural elements which may differ depending upon the perception of the individual.

In her work with stroke patients Sabari (1998) addressed the problems that currently effect treatment outcomes for clients, in particular limitations in resources,

which she identified as mainly including a lack of time. One important conclusion drawn from her work is the need for therapists to assist clients in developing long-term skills for analyzing tasks in relation to their own strengths and weaknesses in order to enable them to develop solutions for future tasks in new environments. "People actively create and respond to the environments that both enable and constrain them" (Jongbloed, 1994, p. 1012).

Kiernat (1982) identified the concept of a life space, which includes objects, other people, events, space, and physical structures. This life space is significant because it impacts the performance or behavior of the individual.

The Person. While the environment influences the person, the person influences the environment. This creates what can be termed environmental press (Lawton & Nehmov, 1973). Environmental press is described as a set of demands placed on the individual from the environment. A lack of congruence occurs in this environmental press when a competent individual is placed in an environment with no or a decreased demand on their capacities of performance. Conversely, adaptation occurs when there is a match between individual competencies and environmental demand (Kiernat, 1982). Any threat to engage in occupation becomes a threat to competence and thus, to identity (Christiansen, 1999).

Competent individuals are "more likely to be alert to those aspects of the environment that provide useful information for their future behavior" (Burke, 1977, p. 256). This behavior includes the maintaining, growing and flourishing of the self (Burke, 1977). Fidler (1981) saw purposeful activity as an organizing construct from which an

individual achieves mastery and thus, competence. By matching the activity and the person the therapist incorporates mastery and competence into treatment which are then verified through the end product.

Matching the activity with the person's readiness is one way to increase client motivation (Fidler, 1981). Ideally, motivation is generated intrinsically. This intrinsic motivation can come through the individual's perception of how the activity is valued by society along with the perception of their ability to meet the requirements of the activity both cognitively and motorically (Thibodeaux & Ludwig, 1988). Florey (1969) identified the fundamental nature of intrinsic motivation in which an individual is able to maintain engagement in an activity because of the satisfaction received through engagement and not from any external forces. She determined that intrinsic motivation underlies competent behavior and can be induced through confrontation with novelty.

Along with intrinsic motivation, feelings of self-efficacy or a belief that one can accomplish what one sets out to accomplish, is another factor that drives individual engagement with the environment. Perceived self-efficacy, in work done in the clinic by Gage & Polatajko (1994), explains the gap that occurs between a patient's skills in the clinic and their ability to effectively transition home. How long a person will persevere in the face of adversity is dependent upon the individual's degree of perceived self-efficacy.

Polkinghorne's (1996) work (while not focused specifically on occupational therapy) on the effect of narrative as a mechanism for client change, revealed the concept of an "agentic protagonist" which is akin to an individual who perceives him/herself as

efficacious. The behavior of an agentic protagonist is typified by self-determination, self-legislation, meaningfulness, purposefulness, confidence, active striving, planfulness, and responsibility. In contrast, a victimic protagonist is one who is passive receptive and views their life as out of their control with others choosing the outcomes.

Efficacy is one of four basic needs, including purpose, value, and self-worth, that individuals try to fill (Christiansen, 1999). Howe (1982) identifies that there are two motivations for any activity and that these can happen simultaneously: 1) the desire to take care of basic needs and thus, reduce tension, and 2) a striving to develop competence and efficacy.

More recently explored in the OT literature is the concept of hope. Hope provides the owner with optimism and with an ability to see beyond the moment to a more positive outcome. Neuhaus (1997) defines hope as a life force for achieving future good and which includes six dimensions: affective, cognitive, behavioral, affiliative, temporal and contextual. Spencer, Davidson & White (1997) identify hope as having both cognitive and emotional dimensions. The cognitive aspect allows individuals to set goals and to test the reasonableness and possibility of their plan. They see hope as being a sort of dialectic between limits and possibilities. The concept of hope is in direct contrast to the concept of helplessness. By taking some form of action toward a situation, hope is instilled, as some sort of action will result (Magill & Vargo, 1997).

Lastly, the concept of resilience allows an individual to transform adversity into possibility. Fine (1991) believes that some individuals have this characteristic of

resilience and that some don't. She uses this concept to explain the gap between patients who move forward from tragedy or illness and those who don't.

Adaptation. Adaptation implies that a change has occurred. Inevitably, when persons and environments merge, change will happen. This change may occur within the environment or within the individual, or both. Adaptation is a change over time as a result of environmental interaction. The expression of time can be understood in terms of an evolutionary time period, ontogenesis, or immediate learning (Montgomery, 1984). Evolution is concerned with biological survival and species adaptation. Ontogenesis refers to the learning and adaptation that occurs over a lifetime of interaction with the environment. Immediate learning seems to speak most to the day to day tasks encountered in occupational therapy. Immediate learning occurs in the present and allows the actions of the individual to equal the demands of the environment.

King (1978) identifies adaptation as being a response to stress. She identifies four characteristics of an adaptive process: 1) the person adapts to and acts on the environment, 2) adaptation is called forth by the demands of the environment 3) adaptive responses are organized subcortically, and 4) the adaptive response is self-reinforcing. The subcortical response is significant as it allows the individual to generate an action without tapping extraneous sources of energy (Selye, 1956). Thus, the individual doesn't necessarily "think" about what they are doing, their response is more automatic.

Adaptation, along with restoration and maintenance, is one tool that helps impaired individuals return to activity (West, 1989). Individuals who experience crisis can also experience new opportunities for change. A crisis can mobilize an individual

toward handling complex tasks and striving to restore a sense of mastery and control (Rosenfeld, 1989). “ The formation of a productive pattern of daily life depends on the victim’s ability to mobilize effectively, face conflicts crystallized by the crisis, and make choices for action based on thoughtful revaluation” (Rosenfeld, 1989, p. 95).

It is important to note that adaptation is a human experience, not an object experience. It comes about as a result of human interaction with the environment. Often this concept is misunderstood, even within the world of occupational therapy. For example, a screwdriver is a tool, not an adaptive device. Objects are not capable of adaptation. Adaptation refers to the change in the person that occurs as a result of engagement in occupation (Sally Schultz, personal communication, August 31, 1995). Nelson (1988) clarifies this concept further in defining adaptation as self-modification and impact as environmental modification.

Schkade & Schultz (1992) have studied the concept of adaptation extensively. According to them, adaptation is a change that occurs in the person’s response approach when an occupational challenge is encountered. Adaptation is brought forth because the customary response approaches for producing some degree of mastery over the challenge are found to be inadequate. Occupational adaptation then is defined as both a process and a state. As a process it is described as a series of internal interactions that occur as an individual is faced with an occupational challenge. As a state, occupational adaptation is an experience of competency to which human beings aspire.

The response that is employed during the occupational adaptation process is evaluated by the individual for its relative mastery. Relative mastery is of course

“relative”, meaning that it is dependent upon individual perspective. The relativity is determined through efficiency, effectiveness, and the satisfaction of the outcome to self and society (Schkade & Schultz, 1992).

Through their research, Schkade & Schultz (1997) identified ten core concepts on adaptation gleaned from the occupational therapy literature which form a strand on adaptation:

- 1) There is an innate urge to affect the environment, 2) adaptive facility and environmental expectations are predictive of the person-environment transaction,
- 3) there is a need to experience mastery in person-environment transactions, 4) person-environment transactions occur in the form of occupation, 5) perception of mastery results from goodness of fit between adaptive facility and expectation, 6) demand for adaptation appears when the “fit” is inadequate, 7) adaptation is a form of change that occurs in: sensorimotor, cognitive, or psychosocial skills; adaptive responses; physical, social, or cultural expectations/demands, 8) mastery over expectations yields satisfaction, 9) the experience of joy resulting from being a successful agent of change fuels the urge to affect the environment, 10) maladaptation is an unsuccessful attempt to meet expectations (p. 469).

These strands speak both to the dynamic and holistic nature of adaptation and the profession of occupational therapy.

Bridging the Gap: What Occupational Therapy Adds to the Concept of Resourcefulness

While previous works in the fields of psychology and nursing have addressed the psychological aspects of resourcefulness and, to some degree the social aspects, none has

provided a holistic approach to addressing the process of resourcefulness. Indeed, the holistic nature of occupational therapy with its attention to the biological, psychological, social, and spiritual aspects of the individual broadens the perspective of the concept of resourcefulness.

As biological beings, we understand and respond to our environment through sensorimotor experience. These experiences can include any number and configuration of the occupational performance areas at any given time (Dunn, Foto, Hinojosa, Schell, Thomson, & Hertfelder, 1994).

As psychological beings, the engagement in purposeful activity impacts the self emotionally (AOTA, 1996) and feeds the drive to continue to engage in purposeful activity. Thus, mental problems are actually the problems of living (Meyer, 1977).

Socially, human beings do not exist in isolation. There is an environmental demand to meet social requirements and achieve social fulfillment (AOTA, 1996). Humans seek out others to address and satisfy unmet needs as noted in one study by Steffan & Nelson (1987) on tool scarcity.

The spiritual aspects of the human being have only more recently been addressed in occupational therapy literature (Christiansen, 1997). Yet, they have existed all along. It seems that the reason they were not openly addressed sooner is not because spirituality was not a valid occurrence; but because of occupational therapy's ties to the medical model wherein spirituality was not viewed within the domain of practice (Christiansen, 1997). In addition, the concept of spirituality is difficult to both identify and quantify (Kirsh, 1996).

Howard & Howard (1997) believe that the mind, body, and spirit are inseparable and that all must be addressed in therapy if a cure is to be forthcoming. Egan & DeLaat (1994) go as far as to reconfigure the way the profession views occupational performance in terms of spirituality. In their model, the spirit of the individual has been placed at the core of the occupational performance model with the performance components being those experiences that allow or block expression.

A Reconfiguration of the Components of Resourcefulness

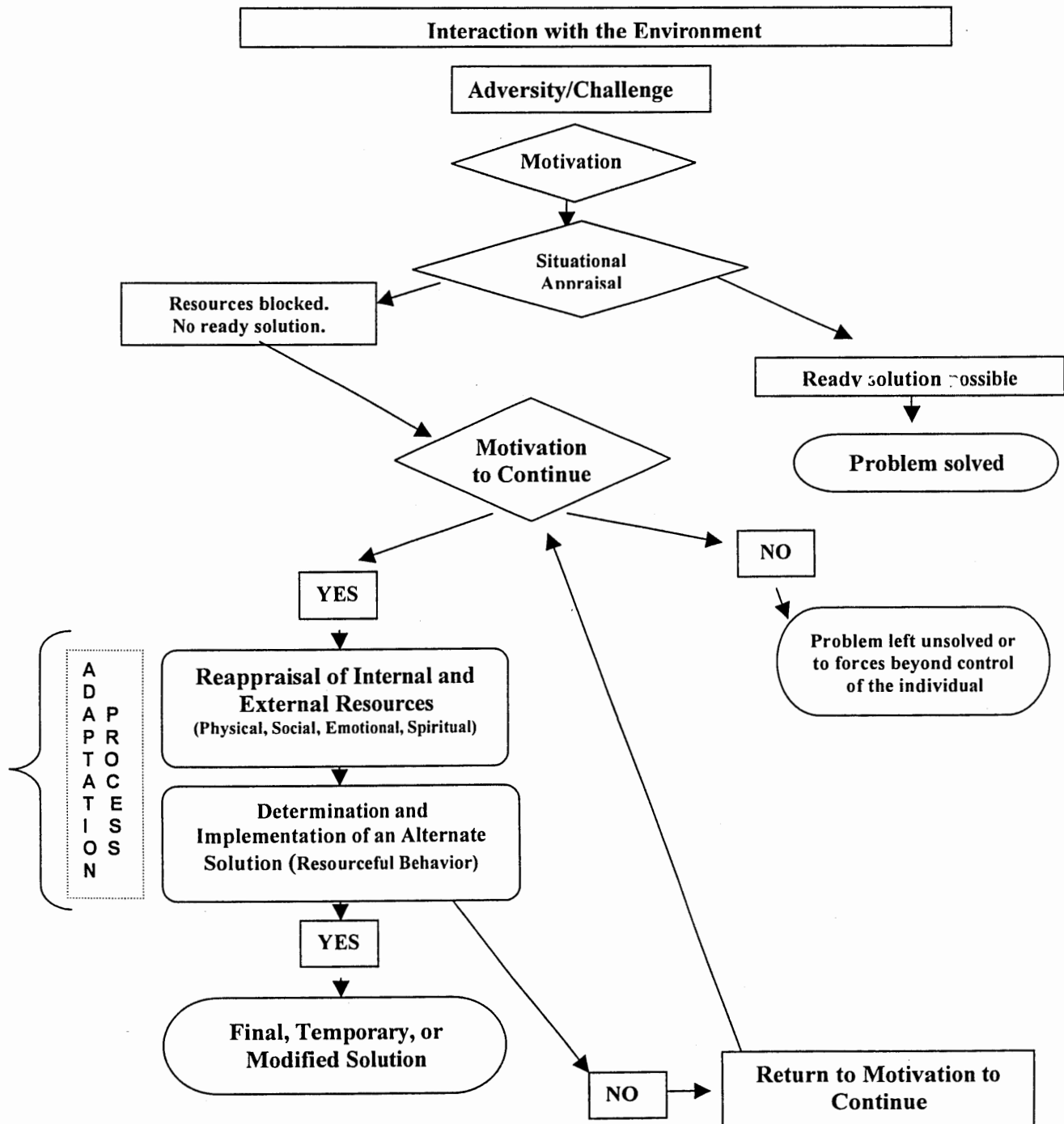
An application of the holistic nature of occupational therapy lends changes to the previous configuration of the components of resourcefulness noted in Figure 1. Primarily, it is recognized that resourcefulness is an adaptive process employed by individuals. This adaptive process occurs during the reappraisal and development of alternate solutions processes. During the reappraisal of internal and external resources, the individual not only explores psychological resources, but, social, physical, and spiritual as well. From this, the individual determines an alternate solution that may be in the form of a physical, social, psychological, or spiritual resource (resourcefulness mode) (see Figure 2).

The choice of modes utilized by an individual in any given situation, of course, represent only that moment in time. Thus, how stable are the choice of modes over time for a particular individual and do they change as a result of experience, health status, social context, personality or some other internal or external event? These are questions that may be answered through more in-depth inquiry on the subject of resourcefulness.

How Will This Information on Resourcefulness Affect Occupational Therapy?

Figure 2

The Resourcefulness Process with Inclusion of Modes of Resourceful Behavior



There is much fervor in the occupational therapy climate regarding access to financial resources for reimbursement of services (Brayman, 1996; Landry & Knox, 1996, Christiansen, 1996; Neuhaus, 1988; Joe, 1998). Most of this surrounds the seemingly perpetual changes occurring with Medicare laws and other third-party payers. There has been a tightening of the belt in occupational therapy facilities across the country as a result. Thus, resources of money, staff, time, and equipment have been adversely affected. All of these restrictions in resources present an adverse situation that creates an obstacle for the providing therapist and more than likely will create some obstacles which trickle down to the client.

Such limitations in resources have led to an increased requirement for outcome studies relating to the efficacy of services provided by occupational therapy. Third-party payers want to know if the services provided by occupational therapy are making a difference.

As a result, the focus of treatment seems to have leaned more to the restoration and maintenance of client skills, and less toward client adaptation. Such focuses in treatment may lead to a superficial outcome of skill attainment, but do not attest to client satisfaction or compliance with treatment over time.

For example, a client, let's say an elderly gentleman, who has experienced a total hip replacement typically is taken through a standard occupational therapy protocol which addresses precautions and tools for attending to daily living tasks. The client is instructed on the use of equipment to aid with putting socks on and putting on pants and

can demonstrate ability to do this without assistance. However, despite this, several days later, the therapist learns that the patient is not performing these tasks independently, but is having his wife perform them for him.

This scenario is all too common in occupational therapy in terms of patient factors frequently considered to be indicators of treatment success that include patient compliance and satisfaction with the treatment process/outcomes. The therapist is left feeling frustrated with the patient and her own effectiveness is questioned. Unfortunately, such patients are often labeled “non-compliant with treatment” when all that they have done is simply surveyed their situation, identified an obstacle, and determined and utilized an alternative solution. But, you might say, he was provided with an alternative solution—why didn’t he use that one? That is the key question.

This is where occupational therapy’s holistic addition to the components of resourcefulness steps in. The biological, psychological, social, and spiritual aspects of an individual can be seen as preferred modes of getting needs met. It is possible that individuals also have preferred modes of facing adversities/challenges and getting their needs met. It is important that as occupational therapists we tap into a client’s strengths and have them work with us through the course of therapy. To do otherwise may cause us to work in opposition to the natural form of an individual’s personality and thus, making the therapeutic process unnecessarily frustrating for both client and therapist.

In the scenario above with the total hip patient, perhaps his preferred mode of getting his needs met is through social resourcefulness. The therapist provided physical

items for him to utilize in isolation. Perhaps the therapy would have been more effective in terms of patient compliance and satisfaction had the therapist been aware of the patient's mode of resourcefulness early on. She could have perhaps engaged the client's wife in the treatment process and educated her as well on the use of the ADL equipment. It is highly possible that greater success in treatment would have been seen if the client were allowed to feel comfortable using the equipment in his preferred mode before relying on a less familiar mode.

Another important component in this scenario is client motivation. Individuals who are in need of occupational therapy services are by the very nature of their position, experiencing adversity and challenge in their environment which does not allow them to meet their needs as they customarily have. Thus, the impetus to utilize modes of resourcefulness is a given. In referring to Figure 2, the diamond in the middle of the page states "motivation to continue". This is the second time that motivation is required in this process. As such, this is where the therapist needs to be attuned to factors that will motivate the patient to engage in the adaptive process. "A personally meaningful intervention focused on the internal adaptation process will be more efficient and the outcomes more likely to generalize to other contexts than intervention focused on general skill development" (Schkade & Schultz, 1997, p. 476).

Studies on Resourcefulness

Ruppert, through the process of doctoral coursework has explored the concept of resourcefulness and occupational therapy from several perspectives. She performed both

an interview (1996a) and participant observation (1996b) of an individual perceived by many to be one who is resourceful. The interview identified this individual's perspective of the definition of resourcefulness and explored how their own resourceful behaviors have developed and have been expressed throughout an individual life span.

In an attempt to explore the potential for differences in resourceful behavior to occur in different environments, Ruppert (1996c) proposed a study of occupational therapy students in level II fieldwork placed hospital environments versus in the community. The hypothesis for the study was that students placed in the community environment would employ more resourceful behaviors and thus, experience more growth than those placed in a hospital environment.

In 1997, Ruppert conducted a study with the purpose of applying a commonly used tool for measuring resourcefulness to issues relevant to occupational therapy. While the data from the study did not reveal statistical significance, the study did lead to the consideration of a need for a tool that measures resourceful behaviors on a broader scale with more relevance to the domain of occupational therapy. Consequently, such a tool in rudimentary form was composed and currently is in the initial stages of development and validation (Ruppert, 1999a). In 1999(b), Ruppert performed a community agency study of Houston and surrounding areas for the purpose of identifying environments and populations conducive to a combined study of resourceful behaviors and the occupational therapy process.

In a doctoral symposium presentation sponsored by Texas Woman's University,

Ruppert (1998) stated that a definition of resourcefulness that speaks to the holistic nature of occupational therapy is beckoning to be studied and written. Subsequently, Ruppert (2000) wrote such a definition for resourcefulness which reads, "Resourcefulness-an adaptive method whereby individuals experiencing a perceived level of adversity access physical, social, emotional, and spiritual means in order to contend effectively with challenges" (p. 26).

CHAPTER III

Development and content validation of The Needs Scale:

A tool for identifying modes of resourceful behavior

The concept of resourcefulness has been active in the day-to day lives of individuals long before the development of written records. Only in the past twenty-five or so years, however, has resourcefulness been studied, and thus legitimized, as a relevant phenomenon that deems further understanding in the scientific arena. Studies of resourcefulness initially formed from the field of psychology out of research done on cognitive-behavioral modification (Meichenbaum, 1977; Seligman 1975). The field of nursing followed psychology in looking at how learned resourcefulness impacts patient behavior (Zsauszniewski, 1995, 1996).

From these professional arenas several definitions of resourcefulness have risen. One popular definition by Rosenbaum (1990) refers to resourcefulness as an individual's ability to regulate emotions that might interfere with the smooth execution of a target behavior. Given this definition as a reference point, the research thus far on resourcefulness has primarily focused on an individual's ability to cope *emotionally* with challenges/adversity.

While the study of the relationship of emotions to human behavior is beneficial to other disciplines, it alone is not sufficient to cover the breadth and depth of human phenomena that occur as examined through the field of occupational therapy. Clients

who receive occupational therapy services experience a continuum of challenges/adversities in several realms and subsequently cope with those challenges/adversities by a variety of means. This seeking from within and without to problem solve or cope with a particular situation deserves exploration.

While previous works in the fields of psychology and nursing have addressed the psychological aspects of resourcefulness and, to some degree the social aspects (Nadler,1990; Zsauszniewski,1996), none have provided a holistic approach to addressing the process of resourcefulness. The philosophy of occupational therapy acknowledges the ability of the individual to influence his own mental and physical health as well as his social and physical environment (AOTA, 1996). Indeed, the holistic nature of occupational therapy with its attention to the biological, psychological, social, and spiritual aspects of the individual broadens the perspective of the concept of resourcefulness.

In the adaptation process, the occupational challenges that occur in life are impacted by a desire for, demand of, and press for mastery (Schkade & Schultz, 1992). Thus, an individual comes together with his environment and adapts in response to the challenges presented. Likewise, resourceful behaviors are responses to the occupational challenges placed on an individual. The individual connects with his environment in an attempt to solve problems and make changes. A broadened understanding of resourceful behaviors will increase the profession's knowledge base of the adaptation process.

In support of the need for research in such areas as resourcefulness, Nelson (1988) notes the importance of research which focuses on the structure of the environment and

how it may lead to predictability in human performance. An understanding of such predictabilities related to resourceful behaviors may allow therapists to design more individualized and more effective treatment interventions that reach and perhaps surpass desired outcomes.

A search of current works on the relationship of resourceful behavior to the field of occupational therapy surprisingly uncovers very little (Herring, 1989; Hettinger, 1996; Rosenfeld, 1989; Wills & Case-Smith, 1996) and none of these works have considered resourcefulness as a distinct research construct for study, nor have they utilized Rosenbaum's definition as a reference point. While occupational therapy has not researched the concept of resourcefulness per se, it would appear that an understanding of resourcefulness holds value for the practice and profession of occupational therapy as a whole as both resourcefulness and occupational therapy take into consideration the adaptive nature of an individual in dealing effectively with the predicaments of daily living.

Defining Modes

The biological, psychological, social, and spiritual aspects of an individual which are focused upon in occupational therapy can be seen as preferred modes of getting needs met, much like the "preferences" described by the Meyers-Briggs Type Indicator (Meyers & Meyers, 1990) wherein an individual's preferences for introversion versus extroversion, judging versus perception, sensing versus feeling, and thinking versus perceiving are identified. This identification of a preferred mode is not for the purpose of determining which preference is better or worse or to say that someone has a "good" or

“bad” personality; it is to identify a direction toward which an individual leans. It is possible that individuals also have preferred modes of facing adversities/challenges and getting their needs met. Perhaps an individual client leans toward using social resources or physical resources to get their needs met during times of adversity.

It is important that as occupational therapists we tap into a client’s strengths and work with them through the course of therapy. To do otherwise may cause us to work in opposition to the natural form of an individual’s drive and thus, make the therapeutic process unnecessarily frustrating for both client and therapist. The more that we understand about how individuals are resourceful and about how they prefer to meet their own needs, the more we can work in unison with our clients toward goal accomplishment in occupational therapy.

Purpose

Currently, tests of resourcefulness include the Self-Control Schedule (SCS) (Rosenbaum, 1980) and the Coping Resources Inventory for Stress (CRIS) (Matheny, Aycock, Curlette, & Junker, 1993). The SCS is a widely used tool in the study of resourcefulness (Rosenbaum & Jaffe, 1983; Jarrett, Giles, Guillion, & Rush, 1991; Kennett, 1994; Kennett, Stedwill, Berrill & Young, 1996; Edwards & Riordan, 1994) which provides a generalized outcome measure as to whether an individual is considered to be high or low on a scale in terms of learned resourcefulness. This sort of “all or none” approach to evaluation does not speak to the variation that may occur in individual preferences. The majority of the items on the scale speak to psychological/emotional resourcefulness and, as the scale is labeled, to self-control behaviors. Perhaps individuals

who score low on the scale are not necessarily psychologically resourceful but perhaps use other modes to get their needs met and to cope with adversity.

The Coping Resources Inventory (CRI) (Hammer & Martings, 1991) is another tool that is used in individual counseling, workshops and health settings which measures an individual's resources for coping with stress. It is a paper and pencil inventory addressing an individual's cognitive, social, physical, emotional, and values resources. The results of the test identify an individual's available and needed resources for coping with stress.

The Coping Resources Inventory for Stress (CRIS) is yet another test designed to address a comprehensive array of coping resources including self-disclosure, self-directedness, confidence, acceptance, social support, financial freedom, physical health, physical fitness, stress monitoring, tension control, and structuring. The CRIS has undergone extensive testing of validity and reliability and is intended as an instrument for identifying strengths and weaknesses in stress coping resources (Matheny et al., 1993).

None of the currently available tests (SCS, CRI, CRIS) provide a preferred mode of resourcefulness from which to assist a client in the adaptive process of treatment. Frequently, instruments are borrowed from other disciplines and this may be justifiable. However, building a body of knowledge and associated tools unique to occupational therapy is a priority if the profession is to survive. (Lynch & Bridle, 1993, p.239).

An instrument that offers more holistic inquiry into the nature of resourceful behaviors and that has relevance to the varied practice arenas in occupational therapy was

lacking. For this purpose, The Needs Scale was developed to lend greater insight into the nature of patient/client resourcefulness in the face of a variety of obstacles. The purpose of the tool is to understand a patient/client's "preferred" way of getting their needs met in the face of adversity in order for therapists to more efficiently, effectively, and meaningfully provide treatment or services. A greater understanding of a client's preferred mode of resourceful behavior could help occupational therapists to identify potential gaps in services and to know what approach is best to take in filling those gaps with a particular patient.

The purpose of this article is to discuss the development and validation of a tool designed to increase therapist awareness of a client's preferred mode of meeting daily life challenges; the expectation is that such a tool will more effectively focus treatment approaches in the practice of occupational therapy.

Tool Development

The process of instrument development and validation as identified and outlined by Benson & Clark (1982) were utilized for this study. These methods include development of a table of specifications, decision making on item format, formation of a pool of test items, review of each test item for construct validity performed by a panel of experts, and rewriting/removal of test items that do not reach total agreement.

A thirty-five-item tool was developed with each item composed of a scenario and five possible responses. The objective of the tool is to identify an individual's preferred mode of resourceful behavior within the context of daily life challenges. Included within

the tool are facets relevant to daily life as well as occupational therapy practice including the occupational performance areas of self-maintenance activities, work and productive activities, and play/leisure activities. The tool also includes holistic elements of practice that impact how an individual engages in these performance areas including social, physical, emotional, and spiritual resourcefulness. The item format chosen for the tool utilizes daily life scenarios and the opportunity to respond to each scenario with a chosen social, physical, emotional, or spiritual solution.

Because occupational therapy has defined its domain of concern to include the areas of self maintenance, work, and play/leisure (Mosey, 1992) these domains were utilized as format categories from which to structure each of the tool's scenarios. Thus, each of the scenarios are designed to be defined as either self-maintenance, work, or play/leisure.

For example:

Self-maintenance scenario:

"The medicine that you are taking is not making you better."

Work/productive activities scenario:

"The handle of the tool you are using breaks."

Play/leisure scenario:

"A plant that you have purchased does not seem to be growing as expected."

Definitions used in the consideration of scenarios for categorization into self-care, work and productive activities, and play/leisure were taken from *Uniform Terminology*, 3rd ed. (AOTA, 1996, pp. 279-282).

Self-Maintenance Activity

Activity performed for the routine care of the self. May include grooming, dressing, eating, medication routine, health maintenance, socialization, functional communication, personal device care, functional mobility, community mobility, emergency response, sexual expression.

Work and Productive Activity

Purposeful activity for self-development, social contribution, and livelihood. May include home management (clothing care, cleaning, meal preparation and clean-up, shopping, money management, household management, safety procedures), care of others, educational activities, or vocational activities.

Play/Leisure Activity

Intrinsically motivating activity for amusement, relaxation, spontaneous enjoyment, or self-expression.

In addition to the domains of self-care, work, and productive activities, the tangibility or intangibility of each scenario was also taken into consideration and categorized to assure a balance of and a variety of potential challenges. The concern was that if all situations were identified as “tangible”, one might naturally conclude that an individual would choose a tangible response. Tangible, for purposes of tool development, is defined as “capable of being touched or grasped” while intangible is defined as “incapable of being touched.” These categories/definitions were included to ensure greater variation in the disposition of choices with regard to the relationship of scenarios to responses.

Examples:

Tangible scenario: “While making a sandwich, you realize that you have no bread.”

Intangible scenario: “You are anxious about an upcoming dental appointment.”

Specific guidelines lending definition to the areas of physical resourcefulness, social resourcefulness, emotional resourcefulness, spiritual resourcefulness, or no resourcefulness were also written. Thus, each response for a given category was measured by its definition to see if it met criteria.

No Resourcefulness:

A lack of seeking out alternatives to solve a problem or meet a challenge.

Physical Resourcefulness:

The use of physically tangible elements from the environment to accomplish desired needs. (May include tools, institutions, and economic resources).

Social Resourcefulness:

Connecting with other human beings as a means of solving problems. (May include family, friends, neighbors, co-workers, casual interactions, individuals, individuals in civic/political/governmental organizations and other personal relationships).

Emotional Resourcefulness:

Drawing from internal mechanisms of control to cope with unmet needs. (May include perceptual, intellectual, emotional, and cognitive factors).

Spiritual Resourcefulness:

The seeking out of assistance/personal revelation/meaning from intangible

sources, outside of the self, in order to meet a need. (May include prayer, reading, listening, values, religion, ritual, and reflections of meaning and purpose).

For example:

Scenario: "You are in a hurry to get somewhere and cannot find your car keys."

Responses: "Give up looking" (no resourcefulness), "Find another way to get where you are going" (physical resourcefulness), "Ask someone to help you look for your keys" (social resourcefulness), "Think about the last time you used your keys and what you did with them" (emotional resourcefulness), "Ask for spiritual help in finding your keys" (spiritual resourcefulness).

Utilizing these specifications, a pool of forty-five daily life scenarios was written along with five possible responses for each scenario.

Tool Validation by Panel of Experts

Method

Participants. A panel of experts was assembled from the occupational therapy community, three who are engaged in clinical practice and three who are academicians working in occupational therapy education. The clinicians were working in the fields of acute care, geriatric psychiatry, and pediatrics at the time of data collection. The academicians are all program directors who teach in either occupational therapy programs or occupational therapy assistant programs. Panel experts were drawn from the states of Colorado, Illinois, Pennsylvania, and Texas. This group was asked to view and rate the instrument on three different criteria. Anonymity of responses by each expert was

assured as no names were to be written on any of the materials and all of the materials were to be mailed to the investigator in identical brown envelopes.

Procedures. First, each member of the panel was asked to identify the five responses given for each of the forty-five scenarios on the tool as either physical, social, emotional, spiritual or no resourcefulness according to the definitions previously given. The goal was for each item to have agreement across panel members with regard to the category in which it was placed. Scenarios in which the responses did not reach two-thirds or greater agreement among experts were to be removed or rewritten.

Next, panel experts were asked to assign each of the forty-five scenarios to one of the domain areas of concern in occupational therapy (self-care, work and productive activities, play/leisure). Again, the goal was to achieve a two-thirds or greater agreement among experts with regard to their category placement for each scenario. Lastly, the experts were to assign each scenario to the category of “tangible” or “intangible”.

Results

Five of the forty-five original scenarios did not have complete agreement among the panelists with regard to identifying responses as either physical, social, emotional, spiritual, or no resourcefulness. However, all items showed greater than two-thirds agreement. Thus, no scenarios or items were changed in this part of the validation process. With regard to assigning each scenario to the categories of self-care, work and productive activities, or play/leisure, thirteen of the forty-five scenarios displayed less than fifty percent agreement across panelists and were eliminated. In the category assignment of tangible or intangible, three of the forty-five items had only fifty percent

agreement and were eliminated. One of these items corresponded with one of the items removed previously.

After all items that did not receive two-thirds or greater agreement for all three areas were removed, thirty-one of the original forty-five items remained. Panelists identified sixteen of the scenarios as self-care activities, ten as work and productive activities, and four as play/leisure activities. Twenty-one of the remaining items were labeled by the panelists as being intangible, while ten were identified as tangible. Four new items were written to reflect a total of thirty-five items in the completed tool (see Table 1).

Qualitative Evaluation by a Panel of Judges

Method

Participants. Once the tool scenarios and items were completed, a second panel of judges (N=11) (5 male, 6 female) from a variety of backgrounds outside of the field of occupational therapy was chosen for a qualitative evaluation. Individuals with no specific relationship to occupational therapy were chosen because there is no specific target group intended for this tool. Panel members were given the scale individually and returned it to the researcher individually. The identified professions of this group include: policeman, real estate agent, biologist/dentist, English professor, electrician, MRI consultant, greeting card stocker, broker, hairdresser, core sample analyst, and a programmer/analyst consultant. Some of the individuals work full-time and some part-time.

Table 1

Number of Items in Content Areas in Completed Instrument

	Tangible	Intangible	Total
Self-Care Activities	2	14	16
Work/Productive Activities	8	4	12
Play/Leisure Activities	5	2	7
Total	15	20	35

Procedures. This panel's instruction was to comment solely on the clarity of the test items and the directions used for test implementation. Panel members were given the scale individually and returned it to the researcher individually. These individuals were administered The Needs Scale in its 35-item completed format. The specific charge of this group of individuals was, once they had completed the scale, to rate the scale according to specific criteria (see Table 2).

Table 2

Questionnaire for Rating Use of The Needs Scale

1) Rate your understanding of the instructions:		
Easy to understand	Difficult to understand	Confusing
2) Would you describe the length of the test as:		
Too long	Too short	Just right
3) The individual questions were:		
Easy to understand	Difficult to understand	Confusing
4) The look of the instrument is:		
Satisfactory	Overwhelming	
5) The size of the words are:		
Too small	Too big	Just right

Results

All participants rated the instructions and the individual questions as “easy to understand” and all were satisfied with the look of the instrument. With regard to test length, four participants felt that the test was “too long” while seven felt that the test length was “just right”. Lastly, nine participants stated that the size of the words were “just right” while two individuals did not respond to this question.

As a result of the responses from the criteria given to participants in the qualitative evaluation, no changes were made to the format that reflected the original five criteria. While all participants were assured anonymity of responses as they were instructed to not write their names on the scale, several offered additional comments, some written and some verbal. These responses were given equal consideration with those from the original five criteria and some changes were made to the scale format as a result.

The original instructions on the scale that were given to the participants were very brief in an attempt to keep the process simple: “Each of the following 35 situations is followed by a possible response. Circle the response that is what you would most likely do in that situation. Even if you feel that you would likely choose more than one answer, you may circle only one response.” Some of the feedback that was received “I didn’t read the instructions, I just went right on into taking the test because it seemed self-explanatory.” This same individual suggested that the word “instructions” be placed

boldly at the top of the scale and that the instructions be bulleted for easy reading. Both of these suggestions were incorporated into the scale (see Table 3).

Table 3

Instructions Used in Revised Instrument Format

Instructions:

Each of the following 35 situations is followed by a possible response.

- Imagine yourself in the given situation and circle the response that reflects what you are *most likely to do first* in that situation.
- Even if you feel that you would likely choose more than one answer, you may circle only one response.
- Quickly circle your responses and do not dwell on any one situation or response.
- There is no right or wrong response to each situation.
- Whatever response you decide on will be the correct response.

One of the participants voiced concern with many of the scenarios and responses because she had never actually done some of the activities and probably never would and at times would have offered a different solution than the ones provided. Thus, the statement “Imagine yourself in the given situation” was added to the instructions.

The length of the test was questioned by the developer as there was not a unanimous response to test length in the original questioning of participants. Again, four individuals felt that the test was “too long”. No changes were made to test length in the final scale due to the need to show redundancy of responses that would indicate a trend in terms of identifying a preferred mode of resourceful behavior for each individual.

Discussion

Limitations of the Study. When the original pool of forty-five items were categorized a greater balance in the items among the categories of self-care, work/productive activities, play/leisure and tangible/intangible existed. However, when the items were rated by the panel of experts, many items changed categories which subsequently resulted in an imbalance in the offering of scenario types as noted in Table 1. Much of this change seems due to individual interpretation by the panel members despite the provision of category definitions. It appears that the age-old conflict of what constitutes as work for one individual, is seen as leisure by another, was expressed here as well. Whether a situation is primarily tangible or intangible proved to be open to individual interpretation as well.

Several questions do arise in the development of such a tool, some of which may only be answered as it is used over time. To begin with, does the outcome of the scale reflect only a moment in time or are individuals likely to change throughout their life span in their approach to getting their needs met? Also, might some changes in preferred modes reflect changes in life experience or exposure to various trials or opportunities met along the road of life? And, last, does an individual's preferred mode reflect their cultural background or even their birth order?

Implications for Intervention. The use of The Needs Scale as a therapeutic tool to understanding a client's preferred approach to getting their own needs met would appear to be of great benefit to the field of occupational therapy. The scale does not align itself with a particular diagnosis, population, age, culture, or setting and thus, it has the

potential to be widely used by the profession. It adds breadth and depth to the other instruments that have already been developed by other professions to rate resourceful behavior. The scale goes beyond simply identifying high or low resourceful behavior and offers the option that perhaps individuals are different in their approach to being resourceful. This approach to client assessment seeks not to label individuals in an “either/or” fashion but seeks to understand them in a holistic manner with the inclusion of physical, social, emotional and spiritual approaches to meeting life’s challenges.

By using the scale as a therapeutic tool, the occupational therapist may choose to change their original approach to treatment for a client based on an understanding of the client’s preferred mode of getting their needs met. Such a shift in treatment approach would assist the adaptation process (Schkade & Schultz, 1992) for the client, which ultimately allows the client to adjust more efficiently and effectively to their condition/situation. This approach to treatment goes beyond treatment protocols and reaches into identifying aspects of meaning for individual clients. Such an approach has the potential to optimize treatment outcomes.

Future plans for the scale include piloting it with occupational therapy students engaged in a tasks that, by design, require alternate modes of getting their needs met. The student’s actual approach to the task will be compared with their preferred mode on The Needs Scale. In addition, the scale will be used in an occupational therapy treatment setting wherein data gathered from qualitative interviews with both clients and therapists will be compared with trends on the scale. Congruencies and gaps in treatment approach and client preferences in treatment will be explored.

The Needs Scale, because of its holistic composition, may also prove to be useful to fields outside of occupational therapy. One of the participants in the qualitative evaluation portion of the validation process for the scale suggested that it could be used in conjunction with the pain scales that are now a JCAHO requirement (Yadgood, 2000). Thus, could a patient's preferred mode of getting needs met be utilized in conjunction with treatment preferences (Acello, 2001) as a solution to dealing with their pain? For example, often a physical solution is provided for alleviating a patient's pain, such as medication. In considering a preferred mode such as social resourcefulness, perhaps the individual would benefit more from talking with someone about how they feel.

Conclusions. It would appear that The Needs Scale has much to offer both the field of occupational therapy and other health related disciplines by increasing awareness of the various facets by which an individual can adapt to life's challenges. In addition, the scale promotes and specifically identifies that the way one individual responds to challenges can differ from another's.

CHAPTER IV

Modes of resourceful behavior in making adaptive equipment:

Instrument piloting of The Needs Scale

Making adaptive equipment is a common practice of occupational therapists in the field as well a useful learning tool for students in occupational therapy programs. So often the practicing therapist finds him or herself in need of a particular item to assist a client in improving their quality of life, yet with little in the way of resources to purchase the desired item. As such, the therapist often must resort to other means to make the item available to the client. This seeking out of alternatives in the face of a challenge to meet a need is indicative of resourceful behavior. Resourceful behavior is defined as “an adaptive method whereby individuals experiencing a perceived level of adversity access physical, social, emotional, and spiritual resources in order to meet their needs” (Ruppert, 2000, p. 26). An individual interacts with his environment and adapts in response to the challenges presented (Schkade & Schultz, 1992). Likewise, resourceful behaviors are responses to the occupational challenges placed on an individual. The individual connects with his environment in an attempt to solve problems and make changes.

The Needs Scale (Ruppert, 2002) is a tool developed to identify modes of resourceful behavior. Previous tools have been developed which identify an individual's available and needed resources for coping with stress (Hammer & Martings, 1991), strengths and weaknesses in stress coping resources (Matheny, Aycock, Curlette, &

Junker, 1993) and levels of learned resourcefulness (Rosenbaum, 1980) in individuals in which a rating of high or low resourcefulness is given. The Needs Scale differs from these tools by determining a preferred mode of behavior by which an individual seeks to get his or her needs met when confronted with daily life challenges. Rather than determining if an individual is high or low in resourcefulness, resource needs, or strengths and weaknesses, The Needs Scale proposes that an individual may be resourceful in different ways. A preferred “mode” includes physical, social, emotional and/or spiritual resourcefulness. These modes are reflective of a more holistic approach to understanding both resourceful behavior and individuals. Occupational therapy practitioners evaluate and apply treatment with consideration to these four modes. Collectively, they are reflective of holistic practice. Each mode is defined as follows:

No Resourcefulness:

A lack of seeking out alternatives to solve a problem or meet a challenge.

Physical Resourcefulness:

The use of physically tangible elements from the environment to accomplish desired needs. (May include tools, institutions, and economic resources).

Social Resourcefulness:

Connecting with other human beings as a means of solving problems. (May include family, friends, neighbors, co-workers, casual interactions, individuals, individuals in civic/political/governmental organizations and other personal relationships).

Emotional Resourcefulness:

Drawing from internal mechanisms of control to cope with unmet needs. (May include perceptual, intellectual, emotional, and cognitive factors).

Spiritual Resourcefulness:

The seeking out of assistance/personal revelation/meaning from intangible sources, outside of the self, in order to meet a need. (May include prayer, reading, listening, values, religion, ritual, and reflections of meaning and purpose).

(Ruppert, 2002, p. 12).

The Needs Scale includes thirty-five daily life experiences, each followed by five possible responses. These responses are indicative of physical, social, emotional, spiritual, or no resourcefulness. The individual completing the tool is to imagine him or herself in that particular situation and choose the response that reflects what they would most likely do. The individual's choices in each mode are totaled and trends toward a preferred mode are then identified. The tool takes approximately ten to fifteen minutes to complete and has undergone a process of content validation (Ruppert, 2002).

Purpose

This tool was developed expressly to increase therapist awareness of a client's behavioral preferences in order to enhance therapist/client interaction in occupational therapy. However, the holistic nature of the tool does not limit it to exclusive use in occupational therapy. By identifying and understanding a client's preferred mode of resourceful behavior, the therapist can work more in tandem with the types of choices that a client is likely to make during the therapy process and afterward. This type of knowledge can ultimately lead to more successful therapeutic outcomes. For example, if

a client's preferred mode of resourceful behavior turns out to be "social" according to The Needs Scale, then the therapist could be more in tune to guiding the patient toward social resources in the therapy process as opposed to other forms of resources which may not prove to be as meaningful to that particular client.

Previous work. An informal pilot study of a non-validated version of The Needs Scale was completed by a group of occupational therapy assistant students who were creating adaptive equipment as part of their coursework assignments. The overall hypothesis of this study was that student's narrative statements, regarding how they overcame the obstacles of creating and constructing their equipment, would be parallel to their preferred mode of resourcefulness as determined by their responses on the instrument.

The hypothesis appeared to have value in this prior work. For example, one student scored at 46 % in the area of emotional resourcefulness, 34% physical resourcefulness, 14% social resourcefulness, and 6% spiritual resourcefulness. This student's narrative portions corroborate with her primary mode of emotional resourcefulness as she stated, " When I was unable to locate the last needed object, it tested my coping skills. I practiced patience and persevered until I was able to find it." Another student scored at 48% physical resourcefulness, 40% emotional resourcefulness, 9% social resourcefulness, and 3 % spiritual resourcefulness. In identifying her ability to confront obstacles she states, "For the first obstacle I used newspaper to practice cutting the right size circles until I came to the right size to wrap around the doorknob."

From these types of relationships it was determined that a formalized approach to tool development, tool validation and tool piloting would prove to be worthwhile.

Current work. Once a tool has been developed and has gone through the initial validation process, the next step is to pilot the tool. Piloting involves administering the instrument to a group that is representative of the target group (Benson & Clark, 1982). Since The Needs Scale is designed to be used with clients and non-clients, occupational therapy students seemed to be both an appropriate and a convenient group for the piloting of the instrument. The purpose of this study was to determine whether The Needs Scale measures what it actually purports to measure. Thus, similar procedures were followed from the previous work done on The Needs Scale.

Method

Subjects. Fifteen to twenty academic sites were surveyed by telephone to determine if their students construct adaptive equipment using certain criteria as part of the ordinary program requirements. The contacted sites were chosen at random from a list of occupational therapy and occupational therapy assistant programs in the United States provided by The American Occupational Therapy Association. From these telephone contacts, four sites were chosen from four different states and seventy-seven packets were sent out to the schools with the goal of achieving at least 50 student responses. Three schools returned completed packets with a combined total of fifty-two student responses. Those students responding were representative both of associate's and master's level degree programs but no distinction was made between them in data

collection. Factors such as student gender, race, and age were not considered for data collection.

Procedure. Students were to make an item of adaptive equipment as part of their regular course assignment. These students were beginning, were in the process of, or had just completed adaptive equipment construction in their courses. The creation of the adaptive equipment items used the following criteria:

- 1) The item must have a functional purpose
- 2) No money can be spent in the production of the item. Students must use resources they already have or resources they acquire from other than monetary means.

Following the creation of the adaptive equipment, students were administered The Needs Scale and completed a narrative response questionnaire about their experiences in making the adaptive equipment. The students' instructors read instructions, provided by the researcher, for completing The Needs Scale and the narrative form. The narrative form included a request for the following information:

- 1) Identification of the equipment made
- 2) Purpose of the equipment
- 3) Estimated period of time involved in equipment production
- 4) Obstacles identified in the process of completing the project
- 5) Statement of how each of the obstacles were confronted
- 6) Identification of feelings that surfaced during project creation
- 7) The reason for making this particular piece of equipment

The completed narratives and scales were gathered and mailed to the researcher by the instructors.

Data Analysis. Student's individual percentage scores for each area on The Needs Scale were totaled. Trends toward one mode of resourcefulness or another were noted by the higher response in one particular area. Student narratives were analyzed for terms which are reflective of the four possible modes of resourcefulness (physical, social, emotional, spiritual) and trends were determined through a process of content analysis, wherein words or phrases in the narratives were counted, categorized and analyzed for their congruence with the modes of resourceful behavior. For example, one student's phrase "I had to use glue for extra reinforcement" was counted as physical resourcefulness. While another student's phrase, "I asked my teacher to help me" was counted as social resourcefulness.

Narrative trends were noted and compared to student test scores on the test instrument. The relationship between the test scores and the quantitative levels gleaned from the narratives were statistically analyzed. This method of comparing narrative data with quantitative data for construct validation has been chosen, as opposed to correlating the subject data from the instrument to subject data from another previously validated instrument (Gravetter & Wallnau, 1996). This kind of comparison strengthens the argument of resourceful behavior being reflective of a particular moment in time.

Results

Students reported a variety of types of adaptive equipment that were made (built-up handle, page turner, typing stick, children's walker, bed rail, adaptive switch, reacher,

rocking horse, carrier for a walker). Some of the obstacles that students faced in the process included items not fitting correctly, needing to use power tools without having previous skills, dealing with the cognitive deficits of the individual for whom they were making the item and altering the form of materials used (splinting materials and PVC pipe).

The majority of students (N=45) scored highest in physical resourcefulness on The Needs Scale. In contrast, only sixteen of the fifty-two students scored high in physical resourcefulness on the narrative. The scores for some of the responses on both the scale and the narrative could not be determined due to lack of student response, receiving the same numerical score in more than one category of The Needs Scale, or receiving equal scores in more than one category in the narrative (see Table 4).

Table 4

Comparison of Student Scores on The Needs Scale and the Narrative

	Instrument	Narrative
Physical resourcefulness	45	16
Social resourcefulness	3	23
Emotional resourcefulness	1	2
Spiritual resourcefulness	1	0
Could not be determined	2	11

A chi-square analysis was performed to determine the degree of relationship between The Needs Scale scores and the narrative responses resulting in no significance (see Table 5).

Table 5

Chi-Square Analysis of The Needs Scale Scores and Student Narratives

	Value	df	Significance
Pearson Chi-Square	5.45806	12	.94091

Discussion

Lack of significant statistical outcome in this study may be reflective of several factors not noted in the informal pilot study from which this pilot study was based. To begin with, several students reported that the necessary materials required to engage in and complete their projects were provided in class by their instructor. The concern with having students utilize materials that are provided and readily available is that the need for engaging in resourceful behavior has been by-passed. As a result, students were given a resource through social means and did not have to seek out materials through their own means.

During the phone screening of individual colleges and universities, one professor indicated the possibility that a few students may have purchased a small item in the production of their equipment. It was decided that because of the small number of students and because the items were not the most significant factor in the creation of the

product that the impact to the study would probably be insignificant. Indeed, some students did report using small amounts of money to acquire materials in creating their equipment which possibly did remove another opportunity to access resourceful behavior even though the item they purchased was only minor to the overall impact of the nature of the equipment.

Many students reported working on their projects during class time as opposed to on their own. This created circumstances where students had easy access to social resources as a means to overcoming obstacles as this form of resource was readily available. As such, students did not need to draw upon any other means of resourceful behavior to get their needs met.

Students in this study were instructed on the narrative format to “give detailed explanations“. However, general responses from the fifty-two subjects were in the form of one-word statements, brief phrases and some short sentences. In contrast, students in the non-validated study used lengthy paragraphs to describe their experience which provided more data from which to “count” types of responses. The students in the non-validated study received a grade for their performance which may have influenced greater length in narrative as opposed to the students in the current study who did not receive a grade and thus, perhaps had less in the way of motivation toward giving more detail in their answers.

Summary

While this study did not demonstrate the construct validity of The Needs Scale, it did provide thought with regard to unforeseen variables which did have an impact on the

ultimate outcome of the study. Further studies need to be conducted with the elimination of such variables to establish the construct validity of The Needs Scale. Several different approaches toward validation could be taken in the future. The methods outlined in this study could be repeated with alterations for considerations of the types of variables that potentially influenced the study outcome.

Alternatively, subject scores on The Needs Scale could be correlated to subject scores on other instruments that test similar constructs. Lastly, a change in research design might also prove useful, such as, counting and interpreting phrases from narrative data on more than one task. Thus, the argument of the documented mode being more truly descriptive of that particular individual's preferred mode of behavior regardless of the task was strengthened.

CHAPTER V

The utilization of modes of resourcefulness:

Exploring the therapist/client interaction

One of the impediments to effective treatment in occupational therapy comes from limitations in resources (Neuhaus, 1988). For clients, these limitations may be in the form of finances, social support, or other forms. In addition, therapy is often prescribed for a limited period of time, after which the client is left to their own to “make do” with what they have despite having limitations in resources. Therapists are also often faced with limited resources in their attempts to provide quality patient care (Kurtz, 1999; Slater & Kyler, 1999; Thomas, 1998). Limitations in resources for a therapist may be physical in nature, such as equipment, or it may be less tangible, such as time limitations available to treat a person with a particular diagnosis.

The process of giving and receiving treatment and of looking down the road of life beyond the confines of the treatment experience requires resourcefulness on both the part of the therapist and the client. Gaps in services can potentially occur when there are limitations in resources. These gaps can lead to frustration and feelings of hopelessness on both the part of the patient and the therapist. Alternatively, these gaps may lead to a search for alternative methods to have needs met through resourceful behaviors. From the literature we can discover several essential components which comprise resourceful behaviors. Initially, some form of adversity or challenge must exist (Hoehn-Saric, Frank,

Hirst & Seltser, 1981; Henderson & Bostock, 1977; Frankl, 1963).

There must be a catalyst by which resourceful behavior is set in motion (see Figure 2). This challenge/adversity seems to come in the form of some problem to be solved or some need that must be met. These challenges/adversities most often come from an individual's interaction with the environment (French, Rogers & Cobb, 1974; Ittelson, 1976; Lazarus, 1984; Mechanic, 1974; and Moos, 1984). The environment is vast and contains physical, social, and cultural characteristics. More specifically, the environment comprises institutions, groups, political and economic entities, agencies, tools, and individuals, to name only a few.

Secondly, a first appraisal of the situation reveals that the most customary means of solving the problem are inaccessible, blocked, or not available in the immediate environment and another resource must be called upon. At this point, the person considers whether or not they are in jeopardy of not getting their needs met (Lazarus, 1984). Hence, the need for resourcefulness. Rosenbaum (1990) identifies this process as "primary appraisal" wherein an individual evaluates the desirability/undesirability of the disruption occurring in their life, and if it is determined that the problem is "threatening" then a self appraisal is made of what to do to reverse any adverse effects (p. 6).

Thirdly, a desire or motivation to address the problem may surface. This motivation is crucial for calling forth resourceful behavior; otherwise, the problem is left unsolved by the individual or is left to forces outside of one's control. Fourth, some form of reappraisal is made of the problem situation by the individual. This reappraisal constitutes scrutiny of internal resources available for dealing with the problem and may

involve a reappraisal of possible resources available in the environment. Finally, an alteration to the problem is brought forth to the situation by the individual which may include a final solution, a temporary solution, or a modified solution. A final solution is one in which no further action is required. A temporary solution meets the demands of the moment but will require intervention at some future point in order to adequately meet the demand over time. And, a modified solution is an adjustment to the primary solution that would have occurred had the resources been readily available.

Application of the holistic nature of occupational therapy adds to the configuration of those components of resourcefulness previously described. Primarily, it is recognized that resourcefulness is an adaptive process employed by individuals. This adaptive process occurs during the reappraisal and development of alternate solutions. During the reappraisal of internal and external resources, the individual not only explores psychological resources, but also social, physical, and spiritual ones. From this, the individual determines an alternate solution which may take the form of a physical, social, psychological, or spiritual resources (see Figure 1.) Each mode of resourcefulness is defined as follows (Ruppert, 2002, p. 12).

Physical resourcefulness: The use of physically tangible elements from the environment to accomplish desired needs.

Social resourcefulness: Connecting with other human beings as a means of solving problems.

Emotional resourcefulness: Drawing from internal mechanisms of control to cope with unmet needs.

Spiritual resourcefulness: Seeking out assistance/personal revelation/meaning from intangible sources, outside of the self, in order to meet a need.

This article examines the preferred modes of resourceful behavior identified by occupational therapy clients and their therapists in a home health agency, and the impact of the interrelationship of their individual resourceful behaviors on the therapeutic process. This study examined how individuals (therapists and clients) attempt to get their needs met (resourcefulness) in general and how the dynamic interplay of individual resourcefulness affects the therapeutic relationship.

Method

Participants

Data were gathered from both clients and therapists in the form of interviews directed specifically at their approach to getting needs met and, in the case of the therapists, at their approach to providing for the therapeutic needs of their clients. Study participants were drawn from a home health agency that supplies nursing and rehabilitation services to a variety of client populations with various diagnoses. This agency was chosen as a study site as it incorporated a few important factors useful to this study of resourcefulness. Those factors were:

- 1) Clients have only limited access to medical treatment resources as funds for the agency are subsidized through charitable donations.
- 2) The agency provides occupational therapy as one of its treatment focuses.

Two therapists, Elizabeth and Fiona, were chosen from the recommendation of the Therapy Services Director for the agency. Four client participants were chosen by the Therapy Services Manager from the client roster of each therapist providing services. Pseudonyms were used in reporting both client and therapist data to protect confidentiality. Clients were screened and considered for the study based on the attending therapists' knowledge of the client's reading/writing skills for completing a simple instrument along with verbal abilities to engage in an interview and to attend to questions and speak for a period of one to two hours. A general profile of each client follows:

Mrs. Ayala- 63 year old Hispanic female. Diagnosis: severe rheumatoid arthritis.

Mrs. Baker- 89 year old black female. Diagnosis: closed hip fracture.

Mr. Carson- 58 year old white male. Diagnosis: Above knee amputation secondary to diabetes.

Mr. Daniels- 76 year old black male. Diagnosis: C-4 quadriplegia.

The Needs Scale (Ruppert, 2002) was the instrument used to determine modes of resourceful behavior. This is a thirty five item instrument that provides daily life challenge scenarios and corresponding solutions to each challenge in the modes of physical, social, emotional, spiritual, or no resourcefulness. Trends are noted for examinees choice of response in particular areas. The mode wherein the most choices are made is noted as the individual's "preferred mode". Results from this tool were used to compare the narrative data gathered from the interviews.

Because subjects were drawn from a home health agency, there are no direct client services provided on site; the agency office, itself, is used only for administrative purposes. As such, interviewing clients took place in the individual client homes; the interview site for one therapist was conducted at a private study room at the local public library and for the second therapist, at her home.

Procedure

Individual interviews with clients and therapists were for the purpose of gathering the perceptions of the subject's experiences in the therapy process and relevant experiences of the subject's past history that might lead to further understanding of their current mode of resourceful behavior. The narrative interview sought to find both the client's and the therapist's identification and interpretation of limitations in treatment resources as well as their attempts to bridge the gaps. Subjects were guided through a semi-structured interview format (Holstein & Gubrium, 1995) which sought information on:

- 1) How do individuals who receive occupational therapy services effectively/ineffectively deal with the challenges /adversities that arise in the therapy process?
- 2) How do occupational therapy practitioners effectively deal with the challenges/ adversities that arise in the therapy process?
- 3) How does congruency/lack of congruency in mode of resourcefulness between client/ therapist affect the therapy process?
- 4) How does therapist awareness of congruency/lack of congruency in mode of resourcefulness between client/therapist affect the therapy process?

Interview questions for both therapists and clients were grouped into the categories of history/background, the treatment process, resourceful behavior, gaps in treatment, and resolution. Each interview was audio recorded and transcribed to computer disc. In addition, each participant completed The Needs Scale.

Data Analysis

Means of data analysis for the interviews in this study were done using grounded theory which included the process of open coding, axial coding and the constant comparative method (Strauss & Corbin, 1990). Grounded theory is “inductively derived from the study of phenomenon it represents...it is discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon” (Strauss & Corbin, 1990, p. 23). The narrative analysis utilized “units of information” (Lincoln & Guba, 1985, p. 344) in the interpretation process. Member checks were performed with each therapist. Triangulation of data occurred by comparing narrative data with client scores from The Needs Scale. Each of the participant’s results from The Needs Scale was individually scored and charted using a Microsoft Excel program.

Results

The Needs Scale

Comparison of score results for each therapist and their two clients on The Needs Scale shows both congruence and incongruence between their preferred modes. Elizabeth scored highest in physical resourcefulness, followed respectively by social, emotional and spiritual resourcefulness. Both of her clients’ scores followed hers closely.

Mrs. Ayala, like Elizabeth, displayed a preference for physical resourcefulness, followed by social, emotional and spiritual resourcefulness. Mr. Daniels showed an equal preference for physical and social resourcefulness, followed by emotional and spiritual resourcefulness like Elizabeth (see Figure 3).

Fiona also manifested a preference for physical resourcefulness, followed by emotional and then social resourcefulness. She did not register any score in spiritual resourcefulness. One of Fiona's clients scored quite closely to her preferences while the other presented with drastic differences. Mr. Carson scored highest in physical resourcefulness followed by social and emotional resourcefulness. He, like his therapist, displayed no score in the area of spiritual resourcefulness. Conversely, Mrs. Baker scored highest in spiritual resourcefulness, with social, physical and emotional resourcefulness following (see Figure 4). Neither clients nor therapists in either client /therapist group entered any score in the category of "no resourcefulness".

Pre-Interaction Experiences: Development of Resourceful Behavior

Client experiences

Responsibility for the welfare or work of others in their earlier years was common among all of the clients. All had held supervisory roles in the workforce, parenting, family life, and/or in church leadership positions. One of the clients, who was the oldest child in her family when she was growing up, was responsible for taking care of younger children and described herself as "bossy". She seemed to feel that her "bossiness" had been a real asset to her at that point in her life as well as in her later years when she was hired to be the supervisor or "boss" over many people. Again, this

Figure 2

Comparison of Elizabeth's Mode of Resourcefulness with that of her Clients

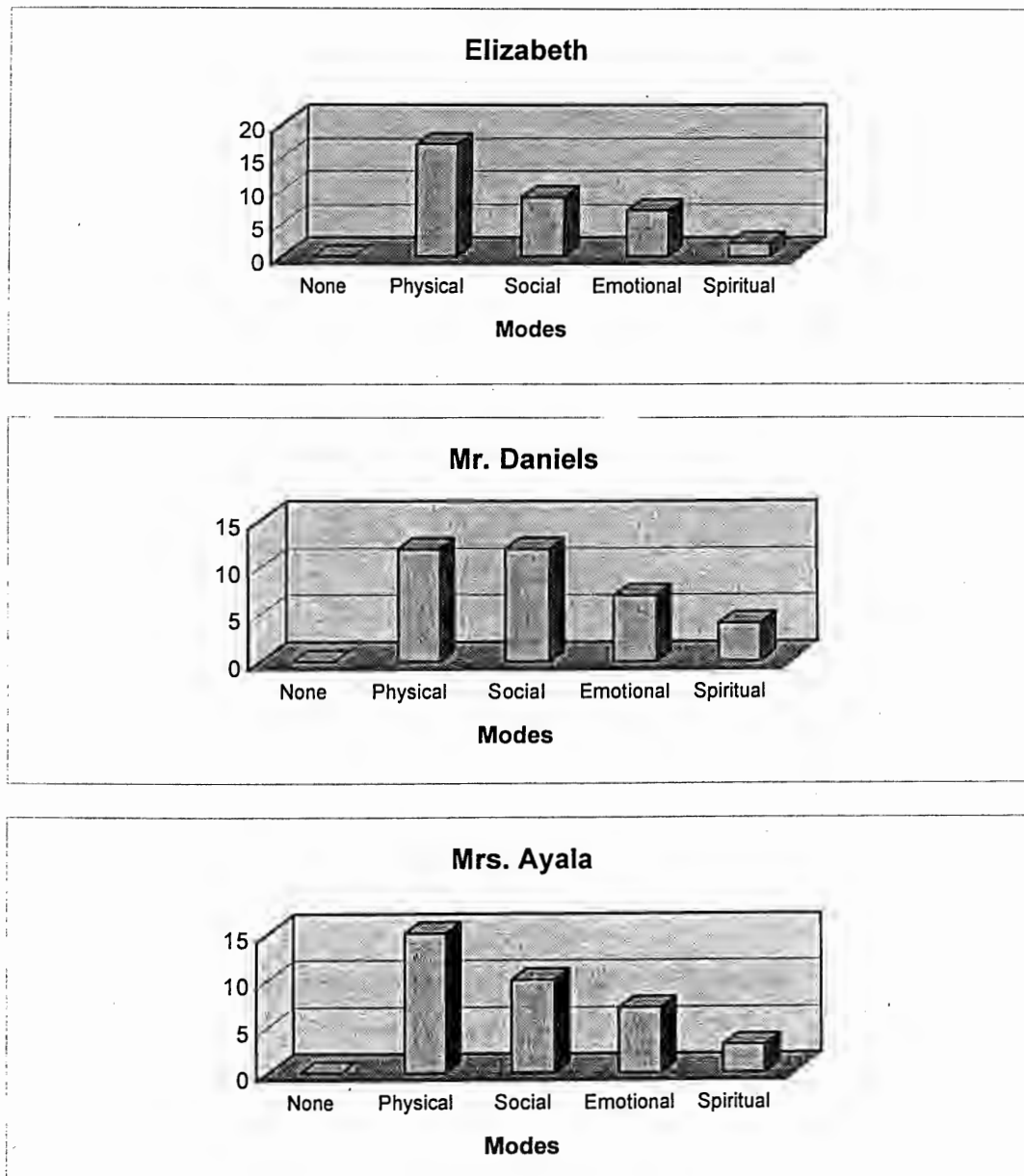
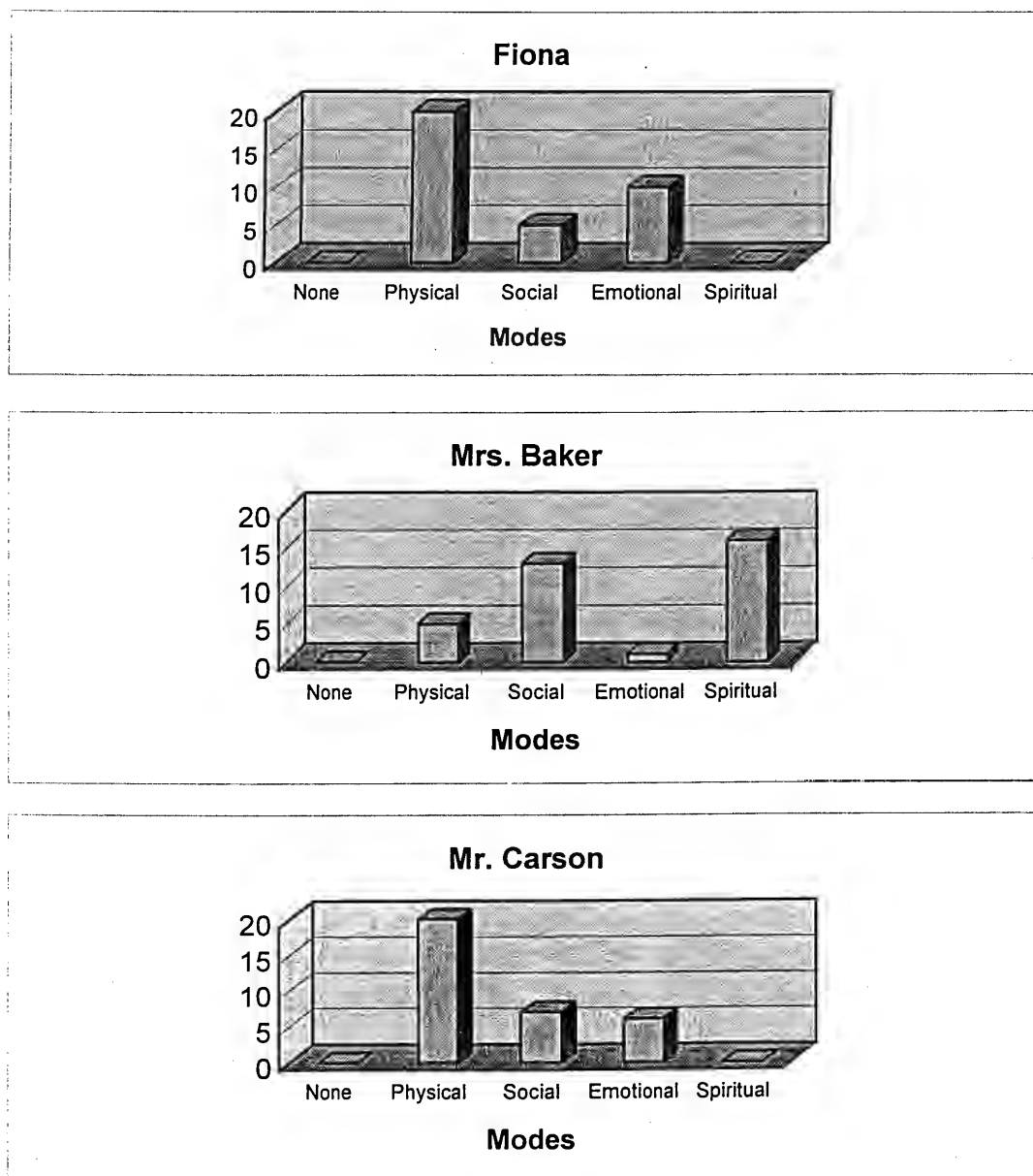


Figure 3

Comparison of Fiona's Mode of Resourcefulness with that of her Clients



characteristic of accessing social resources has proven helpful to her at this current stage in her life by asserting her needs with family so that she could have them accomplish tasks that she could no longer do. The other female client grew up in a large family and became a parent early on in her life. Both of these experiences were indicative of her ability to negotiate for her own needs through engagement with others later on in life.

One of the male clients described his family as “poor” when he was growing up. And, as such, he demonstrated physical resourcefulness early on, “We had to create toys because my parents weren’t able to buy them. We would cut a tree down and put wheels on the butt of the tree and make a log rider.” This same client literally built his own home later in life and is grateful for the things that he can still do with his hands. The other male client described physically resourceful behavior from his past job experience,

“It was almost an everyday occurrence out on the job site. You would need to do a particular task and you would not have everything you need to do the job and you would have to do the best you can with what you have.”

Therapist experiences

The childhood background of both therapists included frequent family moves and, as such, each was periodically uprooted from established relationships and environments and was forced to adapt regularly to new people and new situations. Although each of their interpretations of this experience was different, Elizabeth referred to the frequent moves as “heading off to something new and exciting”, while Fiona described a “fear of new situations, new environments”. Interestingly, both have found a comfortable niche

in the home health setting which typifies the need to quickly establish new relationships as well as abruptly end them. Both therapists come from families with several siblings; Elizabeth is one of five children and Fiona is one of four. In the therapy process, both therapists incorporated family members in their evaluation of and use of available social resources for each client. Each therapist had observed family members adapting to new situations on a regular basis and seemed keenly aware of the family processes that were going on in their clients' homes. They worked carefully to help clients and family members transition to the changes that were occurring in the family; the therapist took on the role of helping family members collaborate on alterations in the household as well as in relationships.

Fiona: "The husband and wife needed someone to be the realistic goal setter, the buffer between the two, with her goals and his goals...somebody needed to come in and give them stepping stones."

As a choice of profession, both therapists were drawn to the field of occupational therapy because of its creative aspects. One therapist describes herself as "having always been crafty" and the other as having an extensive art background including sculpture which she feels is a natural fit with the work she does as a therapist, "Needless to say, I enjoy serial casting and splinting...it's so much fun."

Foundations for Interaction

Safety

The foundation of the therapy process for both therapists included a survey of the issues relative to client safety that took into consideration issues of client diagnoses,

client performance skills, and the physical and social environment. Even though the therapists were provided with some degree of client information from the referring agency, Elizabeth pointed out that that information is not always reliable and she must use other means to identify what to expect in terms of patient needs before she arrives at the home,

“Very often the diagnosis is completely ‘whacked’...I had a guy [whose diagnosis] said ketoacidosis and I get over there and it was a gun shot wound to the head with half his skull and brain missing. And, yes, he did have ketoacidosis, but you know...[I] can make assessments about what the home is like based on trying to get a hold of them to schedule an appointment. [I] really know by the first conversation if this family is going to be available or can they get to the phone or are they able to converse with [me].”

Upon arriving at the home, Fiona evaluates the client’s strengths and weaknesses and surveys the environment for physical resources “Do they have equipment, do they need equipment, do they know how to use the equipment? A lot of people come from the hospital with nothing or not what with what they need.” At this point both therapists began to pull from various modes of resourceful behavior which included social resourcefulness by accessing the agency to order proper equipment. Or, in the cases where the equipment is not covered by the client’s payer, the therapist resurveyed the environment and employed physical resourcefulness to make changes in the client’s environment or used alternative physical items in the client’s environment which could effectively substitute for the desired equipment. “I look around the house to see what they

have. Umbrellas can be used as kind of a simple reacher...long spoons for shoe horns.”

She does not see herself as being alone in this process, however, and utilizes her client as a social resource as well, “We have to sit and look around, basically, and we get our ideas from looking around together, the client and I.”

Time was another resource often in short supply for these therapists. Agencies and payers allotted limited amounts of treatment time for clients based on diagnostic protocols and initial evaluations of patient function. This frequently elusive resource was captured in a variety of ways by these therapists, such as “planning a week in advance”, soliciting the agency for more time with the client and stretching the boundaries of protocol. One therapist used her reputation with the agency as a resource for getting more therapy time:

“They know if I am calling and asking for more time that this person needs it.

They know...that I am calling because there is a need. But, that takes time to build up. There are people that abuse that. I also discharge people if they don't need me. They can rely on me, that my clinical decisions are appropriate.”

Upon foreseeing an upcoming gap in treatment time before services could be reinstated to her client, one therapist provided the clients with therapeutic options with which the he/she could engage while the therapist was away. Surprisingly, the threat of losing time with their clients did not appear to be a formidable obstacle to these therapists, even though they did verbalize frustration about to it. They seemed to view the threat matter-of-factly as one that they not only anticipated, but one that they also felt was well within their means to conquer.

Trust

Underlying the therapeutic relationship between each of the clients and therapists was a mutual feeling of trust. By spending time listening to the clients and responding to their unique concerns, the therapists were able to quickly build a trusting relationship. The ability to build such a relationship quickly is necessitated by the time constraints placed by the external agency. Even though these time constraints were in the forefront of their minds, the therapists felt it was worth the extra time they would put forth in listening to their clients in order to build trust. Fiona:

“...listening to what they have to say. I think a good rapport builder is simply just sitting there and not opening my mouth for a while. Once someone talks to you and realizes that you are interested in hearing what they have to say and not just getting through, then they are apt to tell you more.”

One of the therapists had seen both of her clients on previous referrals from the agency. Upon needing occupational therapy services again, each client requested this therapist specifically due to the trust relationship that had been built during earlier visits. Aside from effective listening, both therapists were very assertive with their clients in making recommendations. This assertiveness was well received due to the trust relationship that had already been established. One client said, in speaking about the therapeutic relationship,

“I’m the private and she’s [the therapist] the little sergeant. She’s so quiet, but so firm. So she says, ‘Get up and stand by the bed even if it is only for a minute.’

She wanted me to stand for five minutes. If I can't make the whole time, it's all right, as long as I try. That's why I like, no, that's why I love her."

The building of trust was not exclusive to the relationship between client and therapist. Family members as well were incorporated into the schema of trust. Because family members are often times so integral to the client's ability to follow through with recommendations, they must have a sense of trust that what the therapist is recommending will be of use not only to the client but to them as well. These therapists needed to be keenly aware of those things that they could count on family members to do and those that they could not. From the establishment of trust with both clients and family members, therapists could then determine what and how effectively other resources to assist the client could be accessed; then they knew what other recommendations could be made and which ones could be expected to be followed through.

Motivation

The quest for motivation. All clients expressed feelings of helplessness and frustration with regard to the situations brought on by their illness or condition. Being unable to do that which had been previously done with ease was of particular concern for these clients. A loss of mobility, as well as a loss of a full spectrum of activities from hygiene skills to leisure tasks were addressed by the clients. The terms "used to" and "can't" entered the conversation frequently throughout the interviews as clients described their current level of function. However, despite self-acknowledgement of a loss of abilities, all clients also used the term "try" numerous times in discussing their

experiences in therapy. The initiative of trying, failing, and trying an alternate route was universal to the clients. For example, one client spoke of his frustration with grasping items due to swelling in his hands and yet he developed an alternative route toward getting his needs met, "My hands bother me when I try... things. I can't grab it, get a hold of it...I have to use two hands." Another client commented in general on having to find alternative routes to get his needs met. He reports,

"It seems like I've been on plan B for so long that I'm stuck on plan B, because plan A never materialized...There's lots of things I have to go to plan B for. I'm trying to make plan A work."

The seeking of alternative ways to accomplish tasks was fueled, for most of the clients, by the desire to avoid dependence on others such as their family having to do for them that which they felt they should do for themselves. Clients recognized that if they could not do a task independently that they would need to impose on or have to wait for someone to do all or part of the task for them. Mrs. Ayala, Mr. Carson, and Mr. Daniels would first do all that was in their power with regard to daily tasks and only after all of their efforts had been thwarted would they then seek out assistance from family for what remained. As Mrs. Ayala states: "I need help with all those little things. I'll accept that help willingly. I never want to feel helpless or useless...." Mrs. Baker was more apt to wait and see what others would do for her first.

Clients expressed feelings of hope and optimism with regard to how things had changed for them due to the therapeutic relationship and as such the words used to describe their level of functioning changed from "can't" to "can". Mr. Daniels:

“Since she started working with me I can operate the control on my chair, I can pick up my food and eat, I can help brush my teeth, I can pick my water up and drink my coffee in a cup. It’s the difference between daylight and dark.”

Taking risks to engage in the recommendations proposed by the therapist and then receiving success from following through seemed to be a catalyst for further motivation for the clients.

Accessing client motivation. Both therapists recognized the importance of client motivation in the treatment process and each incorporated it into their approach to meeting the client’s unique needs. By asking herself “why” a particular client may not be motivated to engage in treatment, each therapist, in her own way, considered the internal and external environmental factors that may impede motivation. One therapist, in particular, made it a point to share, that when considering lack of client motivation, she also includes organic factors that may be creating an actual inability to engage in the treatment process as opposed to a lack of desire. One of the external motivating factors that therapists may have to consider are the social resources that are available including family members and other health professionals who visit the home. Elizabeth states,

“So when you are looking at motivation, you have to look to see if anybody is motivating them any other time. It’s not only just up to me.... It’s a lot of family therapy. A lot more than I probably expected.”

Fiona:

“I have people who will do more than I ask them to do; I have people who say they will do it and never do; and I have people who say they will never do

it...[The client] may not like doing it, but he is going to get motivation from [the family]”.

Each therapist maintained that the likelihood of her client following through with her recommendations increased as she focused treatment in the direction of those activities that are specifically meaningful and interesting to that client. In determining appropriate treatment for Mr. Carson, who had shown a preference for physical resourcefulness, Fiona states,

“I came in and started him off on hand exercises....Just something as simple as that. Once I gave [him] exercises, I saw the little light click on...and that opened the door to sorting the [kitchen] utensils and things he couldn’t have done before because his hands were stiff”.

In addition to meaningfulness and interest, each therapist was attentive to how practical and realistic each treatment recommendation was for her client. Fiona:

“[I] can describe anything to [the client] or bring anything to them and if they are not able to piece it together in their head and accept it, then it is not going to work....Some people are gadget people and some people aren’t, so you’ve got to be sure they really will use it before you go purchasing something or making something,”

One interesting dynamic that surfaced with regard to motivation was a perception that some clients appear to have an innate desire to please the therapist. One therapist likened this to when people go to the dentist and are quick to tell the dentist, “I’ve been flossing”. Likewise, clients will tell her, “I did all the exercises you gave me.” In turn,

the therapist is energized by the client's motivation to engage in the treatment that they have recommended.

The Process of Interaction

Throughout the interviews, clients expressed ways that they dealt with obstacles that were often in accordance with their preferred mode of resourcefulness or the mode closest to their preferred mode. Therapists primarily utilized modes of physical and social resourcefulness in the therapy process; they did not use just their own preferred mode of resourceful behavior. However, when discussing ways in which they solve problems in their own lives, their primary mode emerged. For example, one therapist spoke with pride regarding her ability to make-shift household items in order to fix broken appliances in her home.

Three out of four of the clients described themselves as having a spiritual foundation and one client stated, "I don't go to church, but I believe". The therapists differed in their thoughts about the relationship of spirituality to the therapy process. Elizabeth:

"I find on the home health side of things that I'm much more comfortable talking to my clients about their spirituality than I was when I was working in the hospital. Because, you are in their home and you see their pictures and you see their Hindu altar or whatever is there. It's so much a part of their life that it's easier to talk about it."

Fiona:

“I’m a very spiritual person... [but with regard to clients] I very rarely [include] the spiritual end of it. I don’t feel like it’s my role. If they ask about it, then I will talk about it.”

Therapists seemed to have an intuitive sense about a client’s primary mode of resourcefulness and provided recommendations that were in line with that mode. Even though there was an incongruence between Fiona and Mrs. Baker, the therapist was in tune with the mode that would be of most benefit to her and focused treatment recommendations accordingly. While Fiona did not address the client’s primary mode of resourceful behavior, she did address the client’s next and most practical choice. Some of this intuitive sense was derived from the therapist’s ability to draw information from many arenas in the client’s environmental context as well as personal repertoire. For example, during the interview with Mrs. Baker, I would have presumed that her primary mode of resourcefulness was social due to the observations I made of the interplay between her and her daughter. Her daughter would frequently finish sentences or input a word for her mother. The client, in turn, would pause at times in the conversation and seem to be waiting for the daughter to respond.

As each interview progressed, I found myself coming to some conclusions as to which primary mode of resourceful behavior each client would manifest on The Needs Scale. Aside from Mrs. Baker, my estimates proved correct. Mrs. Baker did not use language or make references that would lead one to think that her primary mode of resourcefulness was spiritual.

It seems that modes of resourceful behavior are difficult for individuals to identify in themselves. Both clients and therapists acknowledged that they know they are resourceful but had difficulty describing “how” they are resourceful. Fiona described it this way: “It’s hard to talk about, because it is not something you stop and think about.”

Neither clients nor therapists used only one mode to meet needs and solve problems and these modes were expressed in a variety of ways. Modes of resourcefulness were not static, but rather changed with each new interplay between the individual and the environment in accordance with the challenges that were presented. This is reflected in the results of The Needs Scale for each of these clients and therapists as none presented with an absolute score in any one category of resourcefulness, but each displayed a configuration of choices.

Each of these clients had undergone a role transition within their family and work life as a result of their physical condition. It may be possible that these life transitions also reflect a change in primary mode of resourceful behavior. For example, Mr. Daniels showed an equal preference for physical and social resourcefulness. However, he is also ten years post injury. The question arises then, “Would he have scored with a greater preference in physical resourcefulness just post accident due to his tendency to be physically resourceful in childhood and on into adulthood?” Perhaps the focus toward social resourcefulness has come with time in transitioning to his disability. He has, in many respects, due to his disability, had to learn to utilize another mode in order to get his needs met. Perhaps as clients become more debilitated and/or realize that their

physical status will not change, they resign themselves to another mode of resourceful behavior.

Discussion

At the outset, this line of research sought to understand more clearly how both clients and therapists confront the challenges/adversities that arise in the therapy process as well as to understand how congruence or lack of congruence in mode of resourcefulness between client and therapist impacts the therapy process. For both therapists and clients, the therapy process was a dynamic interplay of seeking and re-seeking ways and means to accomplish the client's goals. This was not a linear process, but one that usually began with identifying the complex subtleties of problems and ended in finding simple and feasible solutions. The therapy process was often one of collaboration between client and therapist. While clients believed in and utilized the therapist as a resource for change, therapists also believed that clients were a therapeutic resource and readily used them to help solve problems throughout the therapy process.

Clients often referred to engaging in actions and activities in the therapy process that were in line with their preferred mode of resourcefulness. The activities, in particular, seemed to be where clients derived meaning and purpose in the therapy process. While these therapists were not consciously aware of a client's preferred mode of resourcefulness when working with them, they did manage to provide tools for therapy that intuitively were consistent with each client's preferred mode of resourcefulness or the next preferred or secondary mode. All clients described the therapeutic relationship as one that was helpful to them and some even felt that, as a result of the resources

provided to them by the therapist, that their ability to engage in the functional and meaningful aspects of their life was dramatically improved.

Clinical Reasoning

The issue of therapist awareness of congruence or lack of congruence with regard to effective engagement in client care did not appear to be of importance in this study. Because both of these therapists had practiced for many years, and as such were well seasoned, it can be reasoned that their intuitive process was due to each having a well-honed sense of clinical reasoning. The clinical reasoning process is one that is multifaceted including procedural, interactive, and conditional aspects. "Experienced occupational therapists seem to shift smoothly from one mode of thinking to another in order to analyze, interpret, and resolve various types of clinical problems" (Fleming, 1991, p. 1007). Additionally, clinical reasoning involves aspects of thought based upon the therapist's own worldview (Hooper, 1997). The therapist's own life experiences contribute to the values and beliefs they bring to the therapy process that form a basis for their decision making.

Newer therapists or perhaps therapists who are less trained in clinical reasoning skills may be less intuitive to the client's preferred mode of getting their needs met and may be focused more procedurally and less in a client-centered fashion. "Therapists can come to reduce their practice to a manipulation of the physical body, forgetting how much their interventions are directed to a person's life" (Mattingly, 1991, p. 986). Upon discussing the construct, both of the therapists in this study felt that knowledge of a client's preferred mode of resourcefulness would prove helpful in the therapist's

decision-making process. Novice therapists could benefit from an increased awareness of a client's preferred mode of resourcefulness at the outset of treatment. Such knowledge would enhance client/therapist rapport, interaction and ultimately increase the level of meaning and purpose of therapist recommendations for the client.

Motivation

One of the findings that emerged in this study with regard to how clients and therapists cope with the challenges/adversities that arise in therapy dealt with the fundamental concept of motivation. It comes as no surprise that motivation played such an important role in the therapy process for these clients, as noted in Figure 1, motivation enters into the configuration on not only one, but two occasions. Initially, motivation is presented with a challenge from the environment and secondarily, when the individual learns that their resources are blocked, leaving them with no ready solution for dealing with the problem. Thus, without motivation, the individual cannot proceed to the adaptation process and to the sources of meaning that will bring about the most effective options for a solution to their problem.

For the cycle of motivation to continue as clients proceed through the adaptation process, they will seek out those modes of resourceful behavior that have proven most meaningful. Therapists can assist in this process by providing meaningful recommendations within a client's mode of resourcefulness; through meaningful recommendations, the cycle of motivation can begin to self-perpetuate.

Contextual Issues

Gender, age, and culture were concepts that also entered into this work, to some degree, and should be explored more fully in future works. For example, one of the therapists stated that some of her male clients do not want to be told what to do by a woman and she has learned how to rephrase her requests to “How do you feel about this?” Therefore, the question arises, “Does gender influence an individual’s mode of resourcefulness?”

All of the clients in this study were over age fifty and most displayed a preference for physical resourcefulness with the exception of Mrs. Baker who preferred spiritual resourcefulness. Could Mrs. Baker’s preference for spiritual resourcefulness be a reflection of her age and if so, is it likely that some individual’s become more spiritually resourceful as a transitional tool for coping with the issues of nearing the end of life?

The cultural environment can shape both the motivation for and the meaning of an activity with regard to established ways of doing (Spencer, 1998). A variety of cultures were represented in this study and it was interesting to observe the interplay of the culture and the family dynamics in the interview process. During the interviews of the two black clients, family members stayed in the room and offered responses to the questions being asked. Each seemed very protective of their family members. With Mrs. Ayala, the Hispanic client, her son and mother were both in the home during the interviews although they did not stay in the room. However, when Mrs. Ayala called to her son for assistance at different times, her voice was barely audible yet he would immediately stop whatever task he had at hand and come to her side with eagerness to serve. Mr. Carson, a white male, was home alone during the interview, although in setting up the interview, his wife

spoke with me at length with regard to her hopes and plans for her husband's recovery. Because there is such a small sample of individuals to draw from, it is difficult to draw particular implications from these cultural differences other than to note that they existed.

Adaptation

Ultimately, the findings in this article lend credence to the relevance of modes of resourcefulness to the adaptation process. The adaptation process for individuals is an "internal" one, meaning that a change takes place in the individual as a result of their interaction with the environment (Schkade & Schultz, 1992). This change can be one that is adaptive or non-adaptive. From looking at modes of resourcefulness we can understand more about this internal process by exploring "how" individuals adapt.

A therapist's time with clients, in the full spectrum of the client's lives, is very brief. The therapist's role is to help the client, through the adaptation process, to be able to effectively adapt to the new challenges that will arise in the environment when the therapist is not there. The more options that therapists have available to assist them in their quest toward achieving client independence and satisfaction, the better. The modes of resourcefulness that have been identified in this study embody the factors that are at the core of holistic practice in occupational therapy, the physical, social, emotional and spiritual self. The findings from this study give credence to the importance of providing a holistic approach to client care. Through provision of a holistic approach to treatment, the therapist is more likely to succeed at attending to a client's preferred mode of resourcefulness.

Conclusion

Implications of this study show that consideration of modes of resourcefulness in the therapy process can enhance the therapeutic rapport between client and therapist as well as increase the level of meaningfulness of treatment recommendations given to clients. Through attention to preferred modes of resourceful behavior, therapists can link into factors that can perpetuate client motivation. As well, by adding the notion of modes of resourcefulness to their “tool kit” therapists can work more in tandem to the adaptation needs of their clients, which will ultimately benefit their clients both during and beyond the moment of therapeutic interaction. Further examination of this concept will provide insight to the impact of modes of resourcefulness within various performance contexts.

CHAPTER SIX

Discussion and Implications

This line of research on resourceful behavior was intended to augment the groundbreaking work already begun on the subject by those in the fields of psychology and nursing. The purpose of this study was to discover the role that modes of resourceful behavior have in the therapy process. Previous work on the subject of resourcefulness only began twenty-five or so years ago and has focused primarily on identifying an individual's ability to modulate emotional responses to stress. The theoretical constructs on resourceful behavior came from studies done on learned helplessness (Seligman, 1975). The ultimate premise was, that if an individual could learn to be helpless then they could, in turn, learn to be resourceful. Thus the term "learned resourcefulness" was coined (Meichenbaum, 1977). A definition of learned resourcefulness followed and describes it as "an acquired repertoire of behavioral and cognitive skills with which the individual is able to regulate internal events such as emotions and cognitions which might otherwise interfere with the smooth execution of a target behavior" (Meichenbaum, 1990, p. xiv).

Part of the work done on learned resourcefulness included the development of a scale, the Self Control Schedule (Rosenbaum, 1980) to determine an individual's level of learned resourcefulness. As a result of this pioneering work, numerous individuals and

groups have studied this construct and have used the Self-Control Schedule as a tool in the research process toward increasing their understanding of human behavior.

Resourceful behavior would appear to be an integral part of the theoretical foundations and practice of occupational therapy, yet no previous studies in occupational therapy have focused on this construct. One of the reasons as to why this component may not have been previously considered in a study of occupational therapy is due to the previously stated definition of learned resourcefulness. While this definition is a natural fit for the field of psychology, with its focus on the emotional repertoire of an individual, it is not sufficient for the holistic practice of occupational therapy which also includes an emphasis on “doing”.

A review of the literature on resourcefulness and related concepts such as coping, self-efficacy, self-control and resilience, including literature from occupational therapy, revealed a process that occurs in resourcefulness that is depicted in the form of an algorithm (see Figure 1). In this process, an individual, upon interaction with the environment, experiences some form of adversity or challenge and is subsequently motivated to appraise the situation. From this appraisal they determine that a ready solution to their problem is available or that resources are blocked with no ready solution. If a ready solution is available then the problem is solved if not, then motivation must be again accessed to continue toward finding another solution to deal with the problem. If the motivation is not found, then the problem is left unsolved or to forces beyond the control of the individual.

However, if the individual does have the motivation to seek out alternative routes then they enter the adaptation process that includes a reappraisal and implementation of internal and external resources (physical, social, emotional, spiritual) (Figure 2). Through this adaptation process, hopefully a final, temporary, or modified solution has been developed. If not, the individual returns to the second attempt at motivation and repeats the process.

Although, for the purposes of general understanding, the information has been exhibited quite sequentially, it is important to note that resourcefulness is a dynamic process. From the algorithm, the adaptation process is understood as the inclusion of the reappraisal and implementation of physical, social, emotional and spiritual resources. This adaptation process is the key to successful therapeutic interaction in occupational therapy and as such warranted further study.

Upon further investigation, it would appear that resourceful behavior, whether it is termed “learned resourcefulness” or simply “resourcefulness” encompasses several facets. These different facets of resourceful behavior were defined as follows:

No Resourcefulness:

A lack of seeking out alternatives to solve a problem or meet a challenge.

Physical Resourcefulness:

The use of physically tangible elements from the environment to accomplish desired needs. (May include tools, institutions, and economic resources).

Social Resourcefulness:

Connecting with other human beings as a means of solving problems. (May include family, friends, neighbors, co-workers, casual interactions, individuals, individuals in civic/political/governmental organizations and other personal relationships).

Emotional Resourcefulness:

Drawing from internal mechanisms of control to cope with unmet needs. (May include perceptual, intellectual, emotional, and cognitive factors).

Spiritual Resourcefulness:

The seeking out of assistance/personal revelation/meaning from intangible sources, outside of the self, in order to meet a need. (May include prayer, reading, listening, values, religion, ritual, and reflections of meaning and purpose).

With consideration to these additional aspects of resourceful behavior, a new definition was created: “an adaptive method whereby individuals experiencing a perceived level of adversity access physical, social, emotional, and spiritual means in order to contend effectively with challenges” (Ruppert, 2000, p. 26).

With this definition, it is suggested that individuals perhaps are not just “high or low” in resourceful behavior as the Self Control Schedule would indicate, but instead it is possible that individuals are resourceful in different ways, with each person having their own unique preference as to how they go about getting their needs met, or in other words, being resourceful. In line with a new definition to describe resourceful behavior, perhaps there also needed to be a new way to determine an individual’s preferred way of getting

their needs met or “mode” of resourcefulness. Thus, a new instrument for measuring modes of resourceful behavior needed to be developed.

The first two studies in this dissertation center around the development, validation, and piloting of The Needs Scale (Figure 5), an instrument designed to determine preferred modes of resourceful behavior in individuals. The third study applies The Needs Scale to a therapeutic situation and looks at the interactive process between clients and therapists with regard to preferred modes. Implications from these studies are further discussed as well as recommendations for further research.

Development of The Needs Scale

For a new tool on resourceful behavior to be developed that would be useful to the field of occupational therapy and other fields as well, it needed to comprise a broad range of factors. Recommendations by Benson & Clark (1982) for tool development and validation were followed which include development of a table of specifications, decision making on item format, formation of a pool of test items, review of each test item for construct validity performed by a panel of experts, and rewriting/removal of test items that do not reach agreement.

Individual test items were formulated from a matrix of specifications relevant to the field of occupational therapy as well as to everyday living. Items were developed with consideration to activities of daily living, work and productive activities, and play/leisure activities. The previous definitions of physical, social, emotional, spiritual and no resourcefulness were also used in categorizing items. In addition, items were categorized as being tangible or intangible.

Figure 5

The Needs Scale

The Needs Scale

Instructions:

Each of the following 35 situations is followed by a possible response.

- Imagine yourself in the given situation and circle the response that reflects what you are *most likely to do first* in that situation.
- Even if you feel that you would likely choose more than one answer, you may circle only one response.
- Quickly circle your responses and do not dwell on any one situation or response.
- There is no right or wrong response to each situation.
- Whatever response you decide on will be the correct response.

- 1. You call a friend on the phone to ask his or her opinion on an urgent matter, but there is no answer.**

Deal with the matter later	Look for other means to solve the matter	Call a different friend	Determine that you can probably handle it yourself	Ask for divine assistance in handling the matter
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- 2. On trying to leave for work one morning, you realize that your car battery is dead.**

Do nothing	Find items to help you start the car	Find someone else who can help you start the car	Tell yourself that you can solve this problem	Ask for divine assistance in getting the car to run
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- 3. The medicine that you are taking is not making you better.**

Do nothing	Find something else that you can do to relieve your suffering	Ask a health professional to help you find a solution	Determine that maybe you will feel better later on	Pray for relief from your problem
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- 4. You are in a hurry to get somewhere and cannot find your car keys.**

Give up looking	Find another way to get where you were going	Ask someone to help you look for your keys	Think about the last time you used your keys and what you did with them	Ask for spiritual help in finding your keys
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- 5. You are planning to go bike riding and realize that you have a flat tire.**

Decide to not go bike riding	Look for items that will help you fix the tire	Ask someone to help you fix the tire	Realize that there are other things that you can do besides bike ride	Ask for spiritual help in fixing the tire
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6. You begin to feel ill on a long plane ride.

Continue feeling ill	Find something that you can take or do to feel better	Tell someone else that you don't feel well and ask for their help	Try to concentrate on something else	Ask for divine assistance to endure
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7. You realize that the stain on your favorite shirt does not seem to be coming out.

Throw out the shirt	Try a different product to remove the stain	Ask a friend for suggestions on removing the stain	Conclude that the shirt isn't that important anyway	Try to understand the reason why this has happened to you
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8. A friend has mailed you a gift of a new pair of shoes, but they are a size too small.

Keep the shoes and store them away with no intention of wearing them	Find the shoes at a store near your home and exchange them for your size	Find someone else who wears that size and give the shoes to him or her	Resolve that these things happen sometimes and that it is no big deal	Reflect on the meaning of your friendship with this individual
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9. While getting dressed, you realize that one of your socks is missing.

Don't wear socks	Look for another pair that will match with your clothes	Ask if you can borrow some socks	Determine that the sock will eventually turn up if you look long enough	Ask a higher power to help you find your sock
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10. At work it seems that others are not regularly doing their part.

Do nothing	Post a list of job responsibilities for each person	Talk with a co-worker to find out his/her opinion of the situation	Remind yourself that you only need to take care of your own job	Consider the reasons why this has become your focus
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11. You are feeling hungry, and you won't have an opportunity to eat for hours.

Stay hungry	Chew some gum	Ask someone if he/she could find you something to eat	Recognize that this feeling will go away as you focus on other things	Ask for divine assistance to endure
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12. It seems that you are always late for work.

Continue being late	Review your daily schedule to see what activities could be eliminated	Ask a co-worker for tips on time-management	Realize that this issue will resolve itself	Look for the meaning behind your lateness
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13. You are waiting for a friend who is over an hour late.

Stop waiting	Find productive ways to spend time while waiting	Talk to someone else about your feelings/concerns	Maintain your patience in waiting	Seek for understanding the possible reasons as to why your friend is late
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14. While making a sandwich, you realize that you have no bread.

Decide not to eat anything	Find something else that you can substitute	Ask someone else for ideas	Realize that not everything goes the way that you would like	Ask for spiritual help in solving the problem
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15. You are anxious about an upcoming dentist appointment.

Continue to be anxious	Take a pill to help you with your anxiety	Confide in a friend about your anxiety	Tell yourself that the experience won't be bad	Say a prayer that all will go well with your appointment
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16. You are hungry and have a craving for something, but you're not sure what it is that you want.

Continue feeling hungry	Make something new and different to eat	Ask someone if they have any ideas	Try to divert your thinking	Try to understand the reason for your inability to find satisfaction
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17. In seeking a new job, you are told that your job skills are not adequate for the position.

Stop job search	Find establishment where you can learn to increase your skills	Ask a friend to help you find a job	Hope that you will find a job that will be satisfying	Ask a higher power for help in finding the right job
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18. While looking in the mirror one day, you realize that you look older than you feel.

Do nothing	Find ways to make yourself look younger	Ask a friend what he/she think about your appearance	Realize that aging is just a part of life	Seek to understand the meaning of life changes
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19. While painting a holiday project, you realize that you have run out of a certain color of paint.

Stop working on the project	Use a different color of paint	Ask someone if you can borrow the color of paint you need	Tell yourself that a different color of paint will work out just fine	Look for meaning in this situation beyond the project you are working on
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- 20. You have an opportunity to go on a leisurely trip but can't find the time.**

Don't go	Adjust trip schedule	Ask someone to help you with current projects so that you have time	Tell yourself that things will work out	Ask a higher power to find a way for you to go
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- 21. Someone whom you highly respect disagrees with your opinion.**

Say/do nothing	Look for sources on how to learn to assert your opinion	Ask a friend if your opinion is correct	Acknowledge that it's okay if not everybody agrees with you	Ask for divine assistance in how you are viewed by this person
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- 22. The handle of the tool you are using breaks.**

Stop what you were working on	Find some other materials that you can use to fix it	Find someone to fix it for you	Tell yourself that you don't have to feel frustrated	Ask a higher power for help in finding a way to finish your project
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- 23. Upon turning on the television to watch your favorite program, you realize another program has been put in its place.**

Turn off the TV	Watch a different program	Ask a friend if he or she knows what happened to the program	Tell yourself that the show wasn't that important anyway	Try to understand the reason why this has happened at this time
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- 24. You are unable to locate an item needed to complete a meal.**

Don't make the meal	Find something else that you can substitute	Ask a friend if he or she has the item	Resolve that you can probably get by without the item	Ask for divine assistance
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- 25. You become anxious while waiting for a special event to occur.**

Stay anxious	Find something to do while waiting	Find someone to talk to	Be patient and try to think of something else	Ask a higher power to help you feel less anxious
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26. A group in which you are a member makes a decision that does not agree with what you believe.

Say nothing	Find information to prove that your opinion is correct	Convince an influential group member toward seeing things your way	Acknowledge that it's okay if others don't agree with you	Ask for divine guidance in dealing with the situation
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27. A close friend has accused you of doing something wrong.

Do nothing	Find evidence to prove that you are innocent	Ask another friend for their opinion about what you did	Decide that you don't have to have everyone's approval	Explore the meaning of your friendship with this person
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28. A plant that you have purchased does not seem to be growing as expected.

Continue to take care of the plant as you always have	Read a book on plants for other options	Ask a friend for advice	Be happy with the plant anyway	Consider that all living things have their time and season
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29. In preparing to play a game, you realize that you no longer remember the rules.

Don't play the game	Go to the place where you last saw the rules and look for them	Ask someone else if he or she knows the rules	Make up your own rules	Ask for divine help in remembering the rules
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30. An acquaintance asks to borrow something that you do not feel comfortable lending.

Avoid the question	Offer to lend something else instead	Ask a friend for help in dealing with the situation	Confront the person about your reluctance	Ask for divine help to find the strength to say "no"
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31. In thinking about your life, you realize that some things have not gone in a positive direction.

Do nothing	Find ways to make positive changes for the future	Ask for advice from others	Acknowledge that not everything has to go the way you want it to	Seek understanding for the meaning of life's challenges
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32. You have been asked to do something that you do not feel is right.

Do it anyway	Find other options to accomplish the same goal	Ask a friend for his/her opinion on the morality of the situation	Determine that you don't have to always do what is asked of you	Ask for divine help in making the right decision
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33. A store that you planned to purchase an item from is no longer in business.

Don't purchase the item	Make adjustments in another item that you could use instead	Ask someone if he or she knows where to find the item	Conclude that you can probably find the item somewhere else	Ask a higher power to help you find the item
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34. While planning to play a sports activity, you realize that you are missing some necessary equipment.

Don't play the activity	Substitute a different piece of equipment	Ask a friend if you can borrow his or her equipment	Determine that you can probably still play without the equipment	Ask for divine assistance in finding the missing equipment
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35. While at work you are unable to find some important items that you need to finish a project.

Don't finish the project	Retrace your steps	Ask a co-worker if he or she has seen the items	Tell yourself that the items will probably turn up	Ask for divine assistance in finding the items
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Forty-five items were developed as scenarios. Each scenario offered a daily life challenge/adversity and was followed by five responses that correspond to physical, social, emotional, spiritual, and no resourcefulness. A panel of six experts from the field of occupational therapy (3 academicians, 3 clinicians) was presented with three separate tasks in validation of the tool. First, experts were asked to categorize the five items following each response as physical, social, emotional, spiritual, or no resourcefulness. Next, they were to categorize each scenario as either an activity of daily living, a work and productive activity, or a play/leisure activity. Lastly, experts were to categorize the scenarios as tangible or intangible. In each of the three areas, items that did not receive a two-thirds or greater agreement across experts were removed or rewritten. From this process, thirty-one items remained and four new items were written, evolving into a final thirty-five-item scale.

Next, a panel of eleven judges (5 men, 6 women) from outside the field of occupational therapy were asked to complete the scale and answer a questionnaire regarding their experience with relation to understanding the instructions, test length, difficulty of individual test questions, the look of the instrument, and the size of the words. From the judges' responses and comments, the instructions on the scale were broadened and changed with regard to visual layout. The scale was then ready for the next step of piloting.

This study was submitted for peer review to *OTJR: Occupation, Participation, and Health*. Feedback regarding the current status of the article for consideration for

publication was subsequently provided. Overall, the reviewers felt the instrument was premature in its development, as the piloting of the item for construct validity had not yet occurred. The second study performed in the dissertation with regard to The Needs Scale outlines the piloting procedures that were undertaken.

Piloting The Needs Scale

An informal pilot study using a non-validated instrument was conducted with occupational therapy assistant students in the process of making adaptive equipment. These student's narrative responses to how they dealt with the challenges/adversities of making the adaptive equipment paralleled their scores on the non-validated instrument. This experience formed the premise for the current, formalized study of The Needs Scale.

The purpose of formally piloting The Needs Scale was to determine if it measures what it purports to measure. Fifty-two occupational therapy students involved in making adaptive equipment as part of their academic work were used as subjects. These subjects were gathered from three different academic institutions in the United States that provide instruction to occupational therapy and occupational therapy assistant students. Approximately fifteen to twenty occupational therapy schools were surveyed in the effort to acquire a large pool of students engaged in making adaptive equipment. Students were at different levels of completion of their adaptive equipment at the time of their involvement in the study. Some students had already completed their equipment, some had not yet begun, and some were in the process of making their equipment. Criteria used in making the equipment included making an item that had a functional purpose and

no money was to be used in the item's construction.

Following the construction of their item, the students completed The Needs Scale as well as a questionnaire designed to gather the student's narrative responses with regard to their experiences in making the adaptive equipment. The questionnaire sought student's responses to the following: identification of the equipment made, purpose of the equipment, estimated period of time involved in equipment production, obstacles identified in the process of completing the project, statement of how each of the obstacles were confronted, identification of feelings that surfaced during project creation, and the reason for making this particular piece of equipment. Students were provided with written instructions that encouraged them to give detailed explanations for each of their answers.

The process of data analysis included totaling students scores on The Needs Scale to determine a preferred mode and performing a content analysis of the narrative statements on the questionnaire. In the content analysis, terms that students used that were reflective of physical, social, emotional and spiritual resourcefulness were counted. A chi-square analysis of student scores on The Needs Scale and totals from the content analysis was performed. The analysis did not reveal a statistically significant outcome which may be due to some of the limitations within the study.

In order to discuss the limitations of this study, it is important to note that an informal pilot study, from which this study was based, had been previously performed with some seemingly different results. Some of the limitations that occurred in the

current study are noted as follows:

1) Although a formal statistical analysis was not performed in the previous study, a difference was noted in the breadth and depth of student's narrative responses. Students in the previous study wrote lengthy paragraphs which included much detail. In the current study, students wrote brief statements and often incomplete sentences to describe their experiences. In actuality, students did not write what could be considered a "narrative". From this paucity of information the researcher only had a few terms from which to count student trends toward a particular mode of resourceful behavior. The intent in using narratives was to capture the insider's perspective that is often not incorporated into purely quantitative validity studies. This was not accomplished in this study.

2) Many students reported in their writings that materials for completion of their project were provided to them in class by their instructor and, as such, they did not need to be resourceful as a solution to their challenges was readily available.

3) Some students reported using small amounts of money to purchase items that were not the main portion of their project. Again, this could have affected their need to engage in resourceful behavior.

4) Many students reported that they completed their project in class and not on their own time. Thus, they had easy access to peers and instructors to solve their problems.

5) Students in the previous study received a grade for their narrative and thus may

have been more invested at writing in detail.

These limitations might have been overcome by using more controlled methods of data gathering. For example, students could have been interviewed following completion of their item, as such, probes could have been enlisted to encourage more descriptive detail in responses. Students could have been instructed to make the equipment on their own time, away from class and to use only those items that they already had or that they could find.

While this study did not lead toward the validity of The Needs Scale, it did bring to light several factors which can confound such a study. Future plans for piloting the scale would include more focus on the narrative portion of student's comments. A narrative interview with students regarding the obstacles they encountered and how they were overcome could be performed face-to-face. As such, the interviewer could introduce probes that would increase the breadth and depth of narrative responses. Overall, students should complete assignments away from class and should be responsible for acquiring materials on their own.

Modes of Resourcefulness and the Client/Therapist Interaction

The final study incorporated the application of The Needs Scale to a therapeutic situation. The purpose of the study was to examine how individuals get their needs met through the use of resourceful behavior and how the interplay of modes of resourceful behavior between therapists and clients affects the interactive process.

Data for this study were gathered in the form of interviews of two therapists

working in a home health setting and two of their clients. Each of the therapists had worked in the field of occupational therapy for at least ten years. The clients ranged from age fifty-eight to eighty-nine and were from a variety of racial/ethnic backgrounds including African-American, white and Hispanic. Client diagnoses included severe rheumatoid arthritis, above-knee amputation, C-4 quadriplegia and hip fracture.

Interviews with both therapists and clients were semi-structured and centered on the topics of history/background, the treatment process, resourceful behavior, gaps in treatment, and resolution. These topics were included in an attempt to determine how both therapists and clients deal with the challenges/adversities that arise in the therapy process. Additionally, these topics were designed to increase understanding of how congruency/lack of congruency of modes of resourceful behavior impacts the treatment process as well as how therapist awareness or lack of awareness of these modes impacts the interactive process.

Interview data were audio recorded and transcribed. Data analysis was performed via methods of grounded theory including open coding, axial coding and the constant comparative method (Strauss & Corbin, 1990). Participant's scores on The Needs Scale were calculated and charted on a Microsoft Excel program. Member checks were performed with each therapist. Triangulation of data was achieved by combining both qualitative and quantitative methods and by comparing the perspectives of both clients and therapists (Patton, 1990).

Data analysis from The Needs Scale revealed both congruence and lack of

congruence with regard to preferred modes of resourceful behavior between therapists and clients. The early life experiences of most clients and therapists displayed trends that were in agreement with their primary and secondary mode of resourceful behavior as noted by The Needs Scale. In addition, a review of the therapist's history revealed past experiences conducive to future employment in the area of home health. Issues of safety, trust, and motivation surfaced as foundational to the interaction process between clients and therapists.

Safety issues were related to client diagnosis, client performance skills, the client's physical and social environment, and time issues. Therapists identified and responded to these issues by trying to bridge the gaps in making the environment safe. Therapists pulled from a variety of resources in order to accomplish this including the clients themselves, family members, outside resources, items in the environment, and the referring agency.

Trust was built with both clients and their family members in an effort to see that the therapist's recommendations would be effectively followed. This building of trust was accomplished by the therapist through active listening as well as by the therapist asserting the authority that comes with her role as a provider of health care.

Clients entered the therapeutic relationship with some expressions of doubt regarding their abilities. Through the interactive process, therapists focused on internal and external motivating factors including the meaningfulness of their recommendations for each client. In addition, therapists were practical and realistic with regard to their

recommendations to clients, again building upon client motivation.

Through the study it was learned that modes of resourceful behavior can often be determined by the verbalization and the behavior patterns of others. In addition, it was noted that both clients and therapists used more than one mode in their attempts to meet their needs in this study. This reflects the scores noted for both clients and therapists on The Needs Scale as no scores were exclusive to one category, but instead reflected a configuration of different modes of resourceful behavior. One of the other concepts that emerged from this study was the possibility that an individual's preferred score on The Needs Scale may be reflective of the transitions that occur at different points in life and with regard to some of the incapacities that may occur as a result of an individual's illness or condition.

Final comments in this study discussed the relationship of the identification of modes of resourceful behavior to the clinical reasoning process, motivation, and adaptation. Issues that emerged from this study that warrant further research are the contextual issues of gender, age, and culture and their relationship to preferred modes of resourceful behavior.

Reflections on the Evolution of this Work

I have always been intrigued by the concept of resourceful behavior and have admired individuals who seem to be resourceful. Many occupational therapists with whom I have worked through the years embodied this concept in their approaches to client treatment and clinic organization. Also, many individuals in my personal life have

demonstrated a keen knack for “making do” with whatever resources were at hand.

Upon taking a more academic look at the concept of resourcefulness, I was glad that other individuals felt as I did, that it was a concept worthy of research. However, I also found myself puzzled as I read the definition of resourcefulness that formed the foundation for so much of their research. The “regulation of emotions and cognitions” did not match the “making do” that I had observed for so many years. Consequently, I found myself constrained by the definition as I tried to apply it to the situations I had encountered with clients in occupational therapy over the years. From this, I came to the conclusion that there was something missing from the current research.

Although I knew that something was lacking, I had difficulty identifying what exactly it was until I had an “aha” moment during a very casual and impromptu conversation with a colleague on a seemingly unrelated topic. She was telling me about her daughter who was away at college who telephoned her in exasperation that her car key had broken off in the ignition and she did not know what to do. My colleague was frustrated with her daughter and did not understand why her daughter could not come to the “obvious” conclusion on her own, which my friend stated was to call a locksmith. As she told me this I thought, “Well isn’t that interesting, because I would not have thought to do that at all. I would have looked around for a screwdriver or some other sort of object that I could have used to put into the ignition to start the car.”

From this interaction I began to consider that individuals aren’t just high or low in resourcefulness as Rosenbaum’s (1980) instrument concludes, but perhaps individuals are

resourceful in different ways. As began to think more about this, I questioned myself as to what those ways would be, and I found myself back at my roots in the foundations of occupational therapy practice. I considered the holistic biopsychosocial approach to client care and added the spiritual side, as this area has come more to the forefront in recent years in the occupational therapy literature as it always should have. With this I determined that the physical, social, emotional and spiritual aspects of resourcefulness provided a well rounded scope of the subject. I considered as well the cognitive aspects of behavior and determined that cognition was, to some degree, integral to each of these areas so I did not separate it out.

The more I thought on these ideas, the more I found myself applying them to the everyday challenges that happened in my life. In doing so I considered options for each situation that fell into the categories of physical, social, emotional and social resourcefulness. From these experiences, the idea of composing a new tool that would incorporate a more holistic approach to understanding resourceful behavior developed and subsequently, The Needs Scale was designed, informally piloted, formally redesigned, underwent the validation process and was formally piloted.

The next plan was, of course, to apply the tool in therapeutic situations. In my opinion, one of the purposes of having knowledge about behavior is applying that knowledge in a ways that will be of benefit to others. Based upon this assumption I did a survey of community agencies that provide services to the indigent or those with few monetary resources. This survey led to the home health site chosen for dissertation study.

I felt it would be important to know how clients with limited resources go about getting their needs met, how therapists, who also have certain constraints, may go about trying to meet those needs, and how the two approaches of getting needs met and meeting needs impact each other. This line of thinking led to the design and structure of the third study on therapist/client interaction.

Throughout this line of research, my thoughts about resourcefulness have grown. I do not see it as a one-dimensional process. While these studies focused on looking at "preferred modes" of behavior my thinking has grown to consider more inclusive aspects of a "configuration of modes" and I am further intrigued as to "why" individuals make the decisions that they do at times of adversity.

Conclusions

Three primary research questions were posed at the outset of this line of research. The first research question asks:

"Why do some clients make decisions dealing with challenges/adversity that seem in contrast or in opposition to the goals of therapy?"

In responding to this question it is important to first ask, "Are the goals of therapy in line with the client's goals?" Unfortunately, therapy goals are at times determined by forces outside of the client's interpretation of their needs and may be defined by a third party payer, diagnostic protocols, or by the needs of the therapist. The therapists in the client/therapist interaction study were focused on identifying and meeting the client's own goals. They made recommendations to their clients based on those goals and

intuitively made recommendations that concurred with each client's primary or secondary preferred mode of resourceful behavior.

Secondly, perhaps clients make decisions that seem in contrast or opposition to the goals of therapy, yet they are focusing on what is ultimately meaningful to them. The familiarity of certain options may lead the client to choose those as opposed to new or unfamiliar territory; this in itself can define the meaningfulness of an option. Likewise, a client may focus on what, in their mind, is defined as an available option, yet, they are unable to determine or conceptualize options that are outside of their primary mode of resourceful behavior. Furthermore, clients may solve problems via habitual patterns of behavior that are in line with their preferred mode of resourceful behavior. This habitual behavior may have developed because the individual was able to effectively get their needs met in a particular manner which, in turn, reinforced their motivation to seek out that approach again.

The second research question asks:

"How is it that some individuals seem to excel at adaptation and problem solving with scant resources while others who have access to innumerable resources fail?"

Again, this question must also be answered by starting with a question, "How do we define fail?" Perhaps individuals who seem to fail are instead utilizing a different mode of resourceful behavior that is not being recognized. Again, as with the first research question, perhaps they have chosen a method of adaptation that is meaningful to them and/or one in which they are skilled in accessing.

It is possible that individuals who seemingly have a plethora of resources available may not identify them as resources that are meaningful to them, since they may not be in line with their preferred mode of getting their needs met. In addition, the available resources may prove impractical to the individuals or they may contain aspects that make them unrealistic in their minds. The therapists in the therapist/client interaction study provided resources and made recommendations to their clients that included aspects of meaningfulness, practicality and realism and as such, their clients responded positively to their recommendations.

Some individuals, as a result of their past experiences, may not have learned to readily switch from plan A to plan B in their problem-solving methods as was noted in the first chapter. They may, whether consciously or not, be waiting for a solution to come along that does not require as much effort on their behalf as they would have expended had they switched to plan B. Also, some individuals may have a higher tolerance for ambiguity and lack of closure than others. In addition, some individuals may take longer toward determining the extent of the need and gathering the motivation to seek an adaptive response that would then lead toward engaging in resourceful behavior. Lastly, some individuals may become resigned over time to the concept of not getting their needs met. This speaks to the notion of “learned helplessness” that was identified by Meichenbaum at the outset of this study.

The third research question inquires:

“How can therapists identify and work with a patient’s mode of coping in therapy

to promote more effective and satisfying outcomes?”

This question can be answered by taking notice of the therapists’ behaviors in the therapist/client interaction study. To begin with, these therapists applied active listening skills in their interactions with clients. They took time to listen to their stories and hear what was important and meaningful to their clients. I would like to focus in particular here on the fact that it takes *time* to listen to a client’s stories as time allows for breadth and depth and more opportunity to interpret what is meaningful to the client. I point this out, in particular, in light of the paucity of narrative data provided by the students in the second study. As a result of the insufficient amount of narrative in that study, there was little information from which to effectively draw meaning and as such, the opportunity for misinterpretation was left wide open.

Also, these therapists used effective clinical reasoning skills in their approach to treatment. Their approach was primarily client-centered and they incorporated a holistic approach to their reasoning. They did not limit themselves to one way of determining needs or one way of meeting needs. As such, they both were able to provide services to their clients that focused on their client’s primary and/or secondary mode of resourcefulness.

The issues of safety, motivation, and trust also played an important role in laying a foundation from which these therapists could build the therapeutic interaction and subsequently achieve satisfying outcomes. While the therapists had not identified their client’s preferred mode of resourceful behavior per se, these three factors were explored

through a holistic approach to treatment that increased the likelihood of addressing a client's preferred mode of resourcefulness.

Recognition by therapists that satisfying outcomes do not end with the last day of treatment or with the signing of the discharge note is significant to the therapist/client interaction. The client/therapist interaction study exemplifies the importance of incorporating client adaptation into treatment and not just focusing on the accomplishment of client skills. All of the clients in the study willingly tried things on their own and made their own attempts to adapt to their condition by building upon the recommendations made by the therapist. This behavior illustrates client engagement in the adaptation process that is indicative of effective and satisfying outcomes.

Lastly, an understanding the client's values and belief system will magnify what is meaningful to them as well as what motivates them. Both of these tie in to recognizing a client's preferred mode of resourceful behavior.

Overall, this line of research uncovered that modes of resourceful behavior constitute a complex dynamic. By completion of The Needs Scale, one might come to the conclusion that modes of resourceful behavior are as simple as calculating a score and filling a need for a client that is within their preferred mode. This study has identified that resourceful behaviors instead involve an intricate labyrinth of personal preferences that have evolved over time and have culminated in a moment in time wherein a challenge/adversity is presented. The Needs Scale can, within the scope of its original intent, identify an individual's preferred mode of resourceful behavior within a particular

moment in time.

The scale increases awareness that preferences toward different modes of resourceful behavior do exist. This is no small accomplishment as this awareness of different modes of resourceful behavior broadens the understanding uncovered by previous researchers about the nature of resourcefulness as a whole. It goes beyond the original definition which focuses on regulating emotions and cognitions (Rosenbaum, 1990) and adds a holistic realm of behavior that includes not only an individual's ability to think and feel, but also to act. Herein lies the connection to the field of occupational therapy, which is a practice focused on occupational *performance* and what an individual *actually does* as opposed to only what they are thinking of doing or hope to do. By having an increased awareness as to *how* a client may likely choose to act, therapists can implement more efficient and more meaningful treatment.

Knowledge that modes of resourceful behavior exist brings an overall recognition of resourcefulness and its value in the therapeutic process and raises questions as to how resourcefulness can be taught to both clients and therapists. Clients, as a result of the nature of their condition, may be forced to utilize modes of resourcefulness that would have previously not been a preference, however, now must be used out of necessity. For example, an individual with a diagnosis of quadriplegia, who had previously been very physically resourceful in his life, may find himself in a situation where he is very dependent on social modes of resourcefulness in order to get his needs met. Likewise, novice therapists who may be very procedurally focused in their approach to

providing care may not be focusing on the holistic realm of meeting challenges and getting needs met. Resourceful behavior for individuals, whether client or therapist, happens at a subcortical level and as such is not readily discussed, it just occurs.

By exploring knowledge of resourceful behaviors in a more direct and cognitive plane, resourcefulness could be actually taught to individuals as a method of coping with challenges/adversity. Such knowledge could help clients examine other ways in which they could get their needs met and therapists could benefit by providing options to clients that fall within a more holistic realm.

The concept of modes of resourceful behavior parallels the theoretical framework of Occupational Adaptation (Schkade & Schultz, 1992). In particular, the notion of modes of resourcefulness promotes occupational functioning as well as holistic practice in occupational therapy. Essentially, within Occupational Adaptation, individuals interact with their environment and are faced with occupational challenges and subsequently generate an occupational response. This occupational response can be viewed as falling within a mode of resourceful behavior. Schkade and Schultz (1990) state an assumption that "It is common for persons to respond to occupational challenges with existing modes whether or not they are appropriate to the task. Only as these modes fail to produce relative mastery outcomes do modified or new modes develop" p. 834. This assumption parallels what occurs in the resourcefulness process, wherein an individual utilizes a preferred mode to get his or her needs met in a particular situation and may resort to another mode if the preferred mode does not bring about the desired

results.

Recommendations

This line of research has stimulated interest for the continued study of modes of resourceful behavior in several areas. A continued quest toward the construct validation of The Needs Scale taking into consideration the limitations outlined in the pilot study would be a natural place to begin. This would include having students complete projects independently from class time and without instructor assistance or instructor provision of materials. In addition, students would be interviewed and audio recorded for their narrative comments as opposed to written responses. This approach would allow the opportunity for interviewer probes to encourage substance in student responses.

Much of the information provided in this line of research has been presented in a rather linear fashion with a focus on “preferred modes” of behavior within one moment in time. However, resourcefulness appears to be a more dynamic rather than static process. Future research on the dynamic nature of resourceful behavior would benefit from a closer focus on the particular challenging events in an individual’s life that may have required resourceful behavior. Emphasis would be given to the steps in the thinking processes that the individual may have undertaken in deciding to choose a particular mode of resourcefulness to solve his or her problem. In addition, attention given to changes in modes of modes of resourcefulness, when an attempted solution does not prove fruitful, would also add to the understanding of this concept. Overall, this information would increase the body of knowledge in occupational therapy with greater

understanding as to why individuals respond as they do in a particular situation given an array of possible choices. Thus, why this choice at this time? (Florey, 1969).

Situational trends on The Needs Scale as opposed to an overall focus on preferred modes could be explored by focusing on individual scores in the test item scenario categories of activities of daily living, work and productive activities and play/leisure activities. This type of research focus would seek to understand how individuals might display differences in their approach to dealing with challenges/adversity in each of these particular areas. For example, an individual may prefer one mode when dealing with activity of daily living challenges and another mode when dealing with work and productive activity challenges. As such, an individual's choices may be more connected with a situation over time than with a particular mode. This type of information could provide therapists with knowledge as to how best to meet client needs in particular settings.

In addition, the modes of emotional and spiritual resourcefulness could each benefit from a closer inspection of their particular characteristics. On The Needs Scale, some of the scenario options defined as "spiritual" may be interpreted by some as too limiting or confining. As such, they may not choose that particular option on the instrument even though they may have wanted to make a spiritual choice. In particular, the option of "ask a higher power for assistance" may seem too limiting for some who perhaps would have chosen another spiritual option such as "take a moment to reflect", but it was not available.

Because issues of spirituality are so value laden and can be interpreted in a number of ways, further research into providing individuals with the broadest options possible would strengthen this category on The Needs Scale. Conflicts with the scenario choices for emotional resourcefulness have arisen as well, as some of the options seem more like cognitive options as opposed to emotional options. Each of these items need to be looked at more closely to assure that an emotional resourcefulness option is being represented.

Because both of the modes of spiritual and emotional resourcefulness can occur at an internal level, questions arise as to how these aspects of resourcefulness are demonstrated. Because occupational therapy is focused on the performance aspects of human behavior that are easily observed by the actions of physical and social resourcefulness, the question remains, "How do we observe spiritual or emotional resourcefulness, or can we?" This question holds particular importance as in a situation where a therapist does not use a tool such as The Needs Scale to determine a client's mode of resourceful behavior; how can he/she effectively glean this information from the interactive process? What does spiritual or emotional resourcefulness look like and how can understanding of these be elicited through verbal communication?

Results from the client/therapist interaction study revealed that several individuals who ranked spiritual resourcefulness as their choice on The Needs Scale also referred to themselves as being very spiritual individuals. It is interesting that even though these individuals would seem to have rated this area higher they did not. One explanation for

this phenomenon, given by one of the therapists in the study, was that first she should do all that she is capable of doing on her own and only then should she call upon spiritual resources for help. A study that takes a further look at this issue with regard to the values and belief systems of individuals and the implications as to “why” individuals rank certain modes of resourceful behavior as they do would prove useful to the field of occupational therapy as well as other disciplines.

Overall, future research on modes of resourceful behavior will benefit from more qualitative research. Prior to this line of research, studies on resourcefulness were largely quantitative and as such studied “that” individuals were resourceful and not “how” they were resourceful. Qualitative research, with a strong focus in narrative design, can further explore the issues related to “why” individuals are resourceful in particular ways at particular times and in particular situations. This information will greatly broaden the knowledge base on the subject of resourcefulness as a whole.

Lastly, further research into the “configurations” of scores on The Needs Scale as opposed to just “preferred modes” may provide further insights into the motivational patterns of individuals. For example, what does it mean if one individual ranks their mode of resourcefulness preferences as physical, social, spiritual, and emotional respectively on The Needs Scale? How then does that individual differ from one who ranks the modes as physical, spiritual, social and emotional? Both showed a preference for physical resourcefulness, yet do differences in areas other than preferred mode indicate other fundamental preferences in terms of how these individuals get their needs

met?

Information as to how and why individuals make decisions in their lives when faced with challenges will broaden understanding of the adaptation process. Continued research that looks at the relationship of adaptation to modes of resourceful behavior will ultimately strengthen the abilities of therapists to meet the needs of their clients in more effective and meaningful ways.

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APPENDIX

Publication Correspondence

March 25, 2002

M. Carolyn Baum, PhD, OTR/L, FAOTA
Editor, OTJR: Occupation, Participation and Health
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Dear Dr. Baum,

Thank you so much for your letter and for the comments of the editorial review board regarding to my article, "The development and content validation of The Needs Scale: A tool for identifying modes of resourceful behavior." I have considered each of the reviewer's comments and have found them to be most helpful and congruent with my plans for the scale.

I recognize that it would be premature to publish the article as it currently stands. Further steps toward construct validation and piloting of the tool were already underway at the time I submitted the article to *OTJR*. I am glad that the reviewers collectively seemed to feel that the topic was one worth researching.

Additional plans for the tool include application to the client/therapist interactive process. At this time, I will take the steps necessary to bring this article to a point that is equivalent with the recommendations made. Please thank each of the reviewers for their time in evaluating my work.

Sincerely,

Terra Ruppert, MS, OTR