An Empirical Investigation of the Job Functions Associated With the Development of the Life Care Plan

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Abstract

A comprehensive Life Care Plan is needed for individuals sustaining a catastrophic injury. A Life Care Plan is a document that addresses medical and non-medical needs and projects the costs of needed services over the persons estimated life span. The present study empirically investigated the job functions associated with the development of the Life Care Plan. The target population was comprised of: l) graduates of the Rehabilitation Training Institute who have obtained certification from the Commission on Disability Examiner Certification (CDEC) (N=l41), 2) rehabilitation professionals who have expressed interest in certification (N=376), 3) members of the National Association of Rehabilitation Professionals in the Private Sector who hold membership in the Life Care Planning subdivision (N=193), and 4) members of the National Association of Rehabilitation Professionals in the Private Sector who hold membership in the Forensic subdivision (N=282). A total of 992 rehabilitation professionals were surveyed by the current researcher. Examination of the content of the job task items within each factor led to the following factor titles: I. Assessing Client's Medical and Independent Living Service Needs, II. Vocational Assessment, III. Consultant Services to the Legal System.

Chapter I - Literature Review

Numerous individuals are the recipients of catastrophic injuries which include but are not limited to spinal cord injuries, traumatic brain injuries, severe burn injuries, and multiple amputations (Chawla, 1993; Deutsch & Sawyer, 1995; DeVivo, 1987; Patterson. et al., 1993; Scremin, 1993; Wulz, 1993). Overall, an individual sustaining a catastrophic injury confronts an acute medical emergency, a long-term disabling condition, and a severe alteration of his/her lifestyle and being (Deutsch. Weed, Kitchen, & Sluis. 1989a). Although physicians can eliminate the immediate threats to sustaining life for these individuals, they typically cannot eliminate the need for comprehensive medical services to rehabilitate the person.

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Care plans of persons who sustain catastrophic injuries are very comprehensive in nature involving sen-ices from a variety of rehabilitation professionals who comprise the interdisciplinary rehabilitation team (Deutsch & Sawyer, 1995; Green, 1990). The team may include specialists from rehabilitation counseling, vocational evaluation, social work, occupational therapy, physical therapy, work adjustment, physical medicine, neurology, rehabilitation nursing, therapeutic recreation, and the legal community (Green. 1990; Kessler, 1970; Rubin & Roessler, 1995). Due to the complex nature of each catastrophic injury, the interdisciplinary team has the responsibility of providing a diversity of services addressing the concerns encountered by the individual sustaining a catastrophic injury.

> In order to adequately meet the health and human service needs of those persons sustaining a multitude of physical, internal, and/or head injuries, a comprehensive Life Care Plan is usually necessary. Blackwell, Weed, and Powers (1994) define the Life Care Plan as: A comprehensive, multidisciplinary approach which systematically addresses the medical and non-medical needs of a person with a catastrophic injury or illness and projects the costs of needed goods and services over the person's estimated life span. Along with the costs associated with the disabling condition. replacement schedules and frequency of treatments are also delineated. The Life Care Plan is specific to the person and not generalized to a type of injury or disability (p. 263).

Life care plan development requires input from the interdisciplinary team of rehabilitation professionals who are responsible for managing the post-injury care of the individual and plays a major role in determining the categories of need, frequency of treatment. and the duration of the proposed treatment plan (V.R. May. personal communication, December 3, 1996). The Life Care Planner is retained by either insurance adjusters or plaintiff counsel and is not an original member of the rehabilitation team. Often, the person works independently of the team, but returns to obtain the endorsement of the attending physician and team members regarding specific components of the care plan (V.R May, personal communication, December 3, 1996). A primary mechanism used to ensure the competence of the Life Care Planner and the quality of the Life Care Plan is certification. Certification development research is based specifically on the roles and functions of those developing the Life Care Plan. Although many authors (Alexander, 1995; Blackwell, Weed, & Powers, 1994; Deutsch et al., 1989; Deutsch & Sawyer, 1995) have hypothesized the job duties of Life Care Planners, their job functions have yet to be empirically defined. Research into the job functions and tasks of the Life Care Planner is needed to fill in this void. Empirically identifying the job· functions and associated tasks is essential to validate the competencies which can be used in the certification of Life Care Planners. Empirically investigating the job functions and tasks can provide additional credibility to current training programs which specialize in Life Care Planning by delineating specific job functions of the Life Care Planner. Therefore, the overall purpose of this study was to empirically clarify the job functions associated with the development of the Life Care Plan via a survey of rehabilitation professionals who are currently providing Life Care Planning services.

The remainder of Chapter one will provide a review of the literature pertaining to Life Care Planning. More specifically, the subsequent portions will re,.,iew the following literature: (a) the evolution of managed care, (b) the current importance of certification in

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healthcare, (c) incidence, prevalence, etiology, and characteristics of catastrophic injuries, (d) the content of the Life Care Plan, (e) uses of the Life Care Plan, and (f) perceived job functions of Life Care Planners.

Each major section in the literature review serves the primary purpose of providing the reader with the necessary background to begin to understand the job functions of Life Care Planners. The evolution of managed care reviews the past, present, and future trends in managed care and the need to more effectively document the efficiencies of care. The current importance of certification in healthcare provides information on the emphasis of accountability in our current healthcare system through certification. Coverage of the incidence, prevalence, etiology, and characteristics of catastrophic injuries presents the reader with a picture of the size and characteristics of the population of persons with such injuries. The content of the Life Care Plan reviews the principal elements and categories of need addressed within the Life Care Plan. The section detailing the uses of the Life Care Plan focuses on the various applications for which the Life Care Planner may direct the written plan. A description of the perceived job roles and functions of Life Care Planners is reviewed in detail. This review will provide the reader with some of the roles and functions of Life Care Planners perceived by rehabilitation professionals working with persons requiring comprehensive, long-term care.

The Evolution of Managed Care

Managed care is transforming the healthcare system in the United States. Managed care is generally defined as any attempt to affect the ability to obtain, deliver, or find healthcare (Bischof & Nash, 1996). More specifically, managed care is defined as a general term used to coordinate groups of doctors, hospitals, and other providers to improve the quality and cost-effectiveness of healthcare (Texas Medical Association, 1995). In order to understand the current trends in managed care, one must first see how managed care evolved, the current status of health care, and the direction of health care in the future.

The Beginnings of Managed Care

Managed care evolved as a result of the enormous growth in the cost of healthcare (Bischof & Nash, 1996). Origins of managed care practices are found in the early nineteenth century with the use of standard prepaid health care plans for specialized groups of individuals. As early as the 1800's, immigrant benevolent societies created a prepaid health care plan covering funeral and burial expenses (Friedman, 1996). The immigrants were employed in remote areas often working for lumber companies. mines. plantations, and railroads located in remote areas (Bischof & Nash, 1996; Friedman). Health benefits were offered to those workers making the job offer more appealing and to encourage them to continue working at that site (Friedman). Physicians, hospitals, and nursing services were contracted by these enormous industries (Friedman). Employers have continued to the present to be the main source of healthcare insurance (Bischof & Nash, 1996). Through health benefit programs, employers desired to offer their employees an additional incentive without having to increase their salaries (Bischof & Nash, 1996). Unlike the early 1800s, contemporary healthcare costs have rapidly escalated causing this added incentive to be very costly. Managed care has been a means for controlling these escalating costs in healthcare (Bischof & Nash,

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1996).

The escalating cost of healthcare hit an all time high in the 1980's predicating an increase in membership from 10 million to 55 million in managed care organizations by the end of the decade (Bischof & Nash, 1996). The cost of healthcare continued to escalate in the 1990s causing drastic changes in the cost, delivery, and management of health care services. These major changes are reflected in the following section on the current state of managed care.

Current State of Managed Care

Managed care has entered the healthcare provider network with an undulating force. Most healthcare providers, insurance companies, and employees are familiar with the terms Health Maintenance Organizations (HMO). Preferred Provider Organizations (PPO), and Point of Service Plans. For the purposes of understanding the remainder of this section the above managed care terminology is defined. Health Maintenance Organizations (HMOs) provide comprehensive prepaid health care coverage for both hospital and physician services. Participants in an HMO choose a primary care physician from a list of physicians. The participant is provided a list of primary physician services at a fee (Grolier, 1993). A Preferred Provider Organization (PPO) is a health care arrangement between the provider and the purchaser of services in which services are rendered at a reduced cost by providing its members with incentives to use providers within the network (Texas Medical Association, 1995). PPOs require the enrollee to use a provider contracted with the insurer on an agreed fee schedule (Grolier, 1993). The Point of Service Plan (POS), also known as an open-ended HMO, persuades its members to use the list of recommended primary care physicians but they are not mandated to do so. However, refusal to use one of the recommended primary care providers results in higher deductibles and copays (Texas Medical Association).

Managed care plans have become very profitable. Enrollment in HMOs has escalated from 29 million in 1987 to over 45 million in 1993 (Bischof & Nash, 1996). PPOs experienced an enrollment increase from 12 million in 1987 to more than 77 million in 1993 (Bischof & Nash, 1996). Managed care has also experienced tremendous growth with 2,186 mergers among managed care organizations during 1995 which represents a 22% increase since 1994 (Crigger, 1996). Beginning April 1, 1996, almost 4.2 million Medicare beneficiaries became members of managed care organizations (Marwick, 1996). Sixty-eight thousand beneficiaries are choosing managed care plans on a monthly basis (Marwick). Sixty-nine percent of those industrial organizations with 200 employees or more who have health insurance are to some degree involved in managed care. Twenty-nine percent are in HMOs, 22% are involved in PPOs and 18% in POS plans (Physician Payment Review Commission, 1996; as cited in Friedman, 1996).

Continued growth in healthcare costs led many to believe that the government would initiate a major health care reform at the national level (Bodenheimer & Grumbach, 1996). Because of the national government's failure to reform the healthcare system, reform was initiated within the private sector (Bodenheimer & Grumbach, 1996). Capitation resulted from this major reform by the private sector. Capitation refers to having a fixed fee for each managed care member over a period of time which may be adjusted according to age and gender (Texas Medical Association, 1995). Capitation was developed with the expectations of lowering costs, decreasing unnecessary medical services, and adjusting the "imbalance"

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between primary and specialty care providers (Bodenheimer & Grumbach, 1996). Physicians are now forced to become cost-efficient in the services they render to patients. If the primary care physician renders services that exceed the allotted amount given by the managed care organization, the physician or the hospital becomes responsible for the resulting costs and treatment time.

Many physicians do not welcome capitation. Capitation not only eliminates some of the physician's autonomy in providing services, but it also creates a struggle between the physician and the hospital. Under capitation, the physician is required to split the monthly payments received from the managed care organization with the hospital which is known as "splitting the cap" (Bodenheimer & Grumbach. 1996).

The Future of Managed Care

As a result of having to split payments with the hospital, many physicians are now resorting to integrated care. Integrated delivery systems are defined as organizations. through formal agreements or contracts, affiliate with health care facilities to deliver integrated healthcare services to improve the quality of services and to limit the cost of services to a specific geographic location (Friedman, 1996). Integrated care systems present themselves as a package to potential payers (SMG Marketing, 1995, as cited in Friedman). By presenting themselves as a package deal. integrated care systems are able to directly receive the payments from managed care plans without having to split the cost with the hospitals and additional delivery systems. Therefore the payments are divided among the members in the integrated care system.

As the competition for healthcare increases among service providers, future selection of service providers will be based upon economics (Bischof & Nash. 1996). There will be an elimination of the highest quality and most costly providers within a network. "Managed care still initiate real credentialing for cost-effectiveness based on a true performance assessment rather than contracting with any practitioner willing to discount his or her fees" (Bischof & Nash, 1996, p. 236). Third party payors are already requiring higher standards of care. Many third party payors are monitoring the standards of care regarding the quality and the quantity of resources utilized. One major state employee health plan fired a group of physicians because of their repetitive use of resources (Ramsey, 1992).

Importance of Life Care Planning in Managed Care

The future of healthcare emphasizes a smooth continuum of care for the patient. There is a need for greater coordination between service providers in a managed care environment (Lumsden, 1994). Emphasis is being placed on reducing the duplication of materials (i.e. care plans, assessments, and intake questions) across service providers (Lumsdon). A study at Northwestern University focusing on clinical integration showed a need to: (a)prioritize the clinical integration plan, (b) appoint an individual to oversee the care plan, and (c) create a variety of forms of case management to direct and connect service providers across the continuum of care (Lumsden). There is a need for a comprehensive documenting mechanism that meets the needs of the insurers, providers of services, and the patient's care plan. The Life Care Plan is a document that comprehensively addresses all of the care needs of a person sustaining a catastrophic injury with and without regards for healthcare

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payment plans (i.e. HMOs, PPOs, POSs). The Life Care Plan provides the referral source with organized charted material as well as a comprehensive coverage of the care needs of the patient with a catastrophic injury. The Life Care Plan also facilitates a smooth continuum of care for the patient. The Life Care Plan allows for an unfragmented flow of services across rehabilitation professionals.

Current Importance of Certification in Healthcare

Managed care in the 1990s emphasizes the cost and quality of healthcare (Ranch 1996). Beneficiaries of healthcare services are demanding greater accountability from both the payer and the provider of services (Hanchak). Accountability in healthcare is being addressed in the form of performance assessments or outcome-based measures (Hanchak; Lumsdon, 1994; Palmer. 1996; Ramsey, 1992). Accountability is also addressed in terms of accreditation, certification. and licensure which are interrelated mechanisms of credentialing (Szymanski & Leahy, 1993). Broadly defined, credentialing is the process by which individuals or institutions are designated as having met minimum standards at a specific point in time. In managed care, credentialing is referred to as the process of examining a practitioner's formal training, relevant experience, or demonstrated ability, for the purpose of determining if criteria for clinical privileging are met (Texas Medical Association, 1995). Credentialing is related to the term accountability. Accountability is the process in which an individual's or group's behavior is analyzed in relation to specific standards. As healthcare costs continue to escalate, continued emphasis is placed on the accountability of service providers to adequately serve the beneficiaries of services. Also, the future selection of service providers by managed care organizations rests on their credentials. The physicians who are credentialed and provide cost-efficient services will be selected by managed care organizations (Bischof & Nash, 1996).

The primary form of credentialing is certification. Certification is a process by which a governmental or non-governmental agency publicly recognizes an individual who has satisfied set standards as instituted by that particular agency (Rubin & Roessler, 1995). Certification serves the purpose of identifying for the public, including employers. those professionals who have met a standard that exceeds the criteria established by a degree and governs the use of a professional title (Rubin & Roessler).

The regulation of healthcare professionals via certification contains several benefits. Certification requires that a health care professional display at least a minimum level of competence (Patterson, 1987). Because of its voluntary nature, certification identifies those professionals who are committed to continuing professional development (Patterson). Certification also informs the public that the practicing professional must adhere to a code of ethics (Patterson). Regulation through certification and licensure contains the following benefits: (a) protection of the public which facilitates trust and faith in the profession by the public, (b) an enhanced possibility of third party eligibility, (c) increased possibility of power and prestige (Alberding, Lauver, & Patnoe, 1993).

The current certification process in Life Care Planning is administered by the Commission on Disability Examiner Certification. The Commission on Disability Examiner Certification (CDEC) was established in 1994 in response to the health care industry's need for certified clinical examiners in impairment and disability rating practices. Though established as a not-for-profit agency in 1994, the CDEC evolved in 1992 as a result of meetings with

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allied health care providers around the country in which issues were discussed that focused primarily on clinical examiner credentials, validity and reliability of functional/impairment rating protocol, and the establishment of a testing board to oversee the impairment rating and disability examining credentialing process. The resulting credential is the Certified Disability Examiner (CDE) with three levels allowing for the inclusion of all professionals who are involved in measuring functional performance of persons reporting impairment or disability. The Commission on Disability Examiner Certification awards the Certified Disability Examiner I, II and/or III (COE I, II, III) credential to persons who have satisfied the educational program requirements and training standards established by the National Association of Disability Evaluating Professionals (NADEP), with all classroom instruction currently offered at the University of Florida-Gainesville (V. May, personal communication, March 27, 1997).

The Commission broadened its influence in the medical and rehabilitation marketplace through its research and development of a certification program in Life Care Planning and related catastrophic case management. Currently, comprehensive training programs in Life Care Planning have evolved to respond to this need for long-term care as applied to catastrophic cases. Vocational and/or medical rehabilitation case managers in these catastrophic cases often detail the medical services needed by the client. Rehabilitation nurses have established themselves as consultants and case managers in these catastrophic cases and often detail the medical and rehabilitation needs of the person with a catastrophic injury. As noted above, certification development research is based specifically on the roles and function of case managers and rehabilitation nurses who provide this service as part of their case management structure (V. May, personal communication, March 27, 1997).

The success of any certification process is contingent on the selection criteria used in approving certification candidates, and standards of practice/training which a candidate must meet. The CDEC understands the need for consistency of training among case managers and consultants who provide Life Care Planning services. and therefore offers a generic certification without reference to specialty areas of training or a candidate's achieved degree level. The CDEC requires the following criteria to be met by all candidates in order to qualify to sit for the examination:

- Each candidate must have a minimum of 120 hours of post-graduate or post-specialty degree training in Life Care Planning and meet specific standards.
- Each candidate must be certified or licensed within their respective profession by an accredited certifying agency or appropriate regulatory body.
- Each candidate must have a minimum of one (1) year of work or professional experience in developing life care plans.
- Each candidate must hold the entry level academic degree or certificate/ diploma for their profession.

Certified Life Care Planner Expertise/Skill Standards

Standards outlined in this section in Life Care Planning have been adopted by the CDEC from those established by the University of Florida-Gainesville, authored by Dr. Horace Sawyer, Department Chairperson, Department of Rehabilitation Counseling. Based on

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its own interpretation of these standards with direct application to the field. The Commission on Disability Examiner Certification postulates that Life Care Plan development involves: (a) data collection (b) resource development, and (c) planning strategies in an interdisciplinary rehabilitation environment (V.R. May, personal communication March 27, 1997). Such an interdisciplinary approach allows for valid documentation of the needs of persons with catastrophic injuries and projects the costs of needed services, treatment, and equipment over the individual's life span. To competently develop a Life Care Plan, the CDEC expects those persons who provide this service and who are interested in becoming certified in this specialty area to be skilled and with expertise in research development, coordination, integration, interpretation, and management of Life Care Plans for catastrophic injuries (V.R. May, personal communication March 27, 1997). Certification candidates are expected to demonstrate completion of a minimum of 120 hours of approved training.

The following curriculum content has been developed by the NADEP to provide the essential skills and areas of expertise to effectively research, develop, coordinate, interpret, and manage life care plans for persons with catastrophic disabilities (V.R. May. personal communication March 27, 1997):

1. Orientation of Life Care Planning and Case Management
   a. Definition and History of Life Care Planning
   b. Overview of Life Care Planning Topics
   c. Role of Medical, Psychological, and Rehabilitation Professionals
   d. Issues of Family Dynamics
   e. Review of Legislation Relating to Life Care Plans
   f. Issues and Opportunities of Case Management
2. Assessment of Rehabilitation Potential
   a. Pediatric and Early Assessment
   b. Rehabilitation Evaluation and Special Needs
   c. Interpretation of Medical Evaluations
   d. Personality and Neuropsychological Evaluation
   e. Physical and Functional Assessment
   f. Vocational Assessment and Earnings Capacity Analysis
3. Medical and Rehabilitation Aspects of Disability
   a. Medical Record Analysis
   b. Early Medical Intervention and Acute Rehabilitation
   c. Medical Aspects: Spinal Cord Injury, Traumatic Brain Injury, Amputations. Burns, Psychiatric Disabilities, Chronic Pain and Back Injuries, Other Catastrophic Disabilities
   d. Behavioral Aspects of Disability

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   e. Issues of Neuropharmacology
   f. Long-Term Care Considerations
   g. Issues of Life Expectancy

4. Development of Life Care Plans
   a. Systematic Process of Life Care Planning
   b. Planning Strategies and Resource Development
   c. Interview Procedures and Data Collection
   d. Computer Application and Life Care Planning
   e. Rehabilitation Technology and Applications
   f. Utilization of Collateral Sources
   g. Areas of Life Care Planning
      1) Description Planning for Evaluation and Treatment
      2) Equipment and Aids for Independent Functioning
      3) Orthotics and Prosthetics
      4) Drug/Supply Needs
      5) Home/Facility Care
      6) Medical-Care Routine/Complications
      7) Transportation
      8) Architectural Renovations
      9) Leisure/Recreational

5. Consultation in Life Care Planning
   a. Utilization of Rehabilitation Experts
   b. Analysis of Established Life Care Plans
   c. Medical/Legal Consultation
   d. Development of Reports and Reporting Procedures
   e. Case Preparation for Consultation, Mediation, Settlement, Conference, Testimony

6. Professional and Operational Issues
   a. Process and Issues of Rehabilitation Testimony
   b. Professional Ethics and Malpractice Issues
   c. Operational and Business Practices
   d. Standards of Practice in Life Care Planning
   e. Public Relations, Marketing, and Professional Development
   f. Life Care Planning and Research Issues

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The Incidence, Prevalence, Etiology, and Characteristics of Catastrophic Injuries

Life Care Planning involves the construction of care plans for persons who have sustained a catastrophic injury. The Life Care Planner should have knowledge of the distinctive characteristics of the client population. Therefore the incidence, prevalence, etiology, and characteristics of the following catastrophic injuries will be reviewed: (a) spinal cord injury, (b) traumatic brain injury, (c) severe burn injury, and (d) multiple amputations. These catastrophic injuries are the most frequently addressed in Life Care Planning literature.

Spinal Cord Injury

A spinal cord injury is the dislocation of one or more vertebrae causing damage to the spinal cord and nerve roots resulting in a neurologic deficit, impaired sensory perception or paralysis, or both (Caine & Bufalino, 1988, p.220). In 1982, an estimated 25-35 million individuals annually sustained traumatic spinal cord injury (Hu & Cressy, 1993; Young, Burns, Bowen, & McCutchen, 1982). High risk populations for sustaining a spinal cord injury are young males between their late teens and twenties and older men between their mid-thirties to mid forties (Trieschmann, 1980). The leading cause of traumatic injury to the spine is motor vehicle accidents accounting for 45 percent followed by falls (16%), and gunshot injuries (13%) (Deutsch & Sawyer. 1995, Hu & Cressy, 1993). Although one of the primary goals in rehabilitation is to regain employment, only 13 to 48 percent of those injured return to work (Krause. 1992). This broad range is the result of several factors including: level of injury, time since the occurrence of the injury, and the client/rehabilitation professional's definition of employment (Hu & Cressy, 1993). A study by Young et al. (1994) discovered that over 27 percent of those with a spinal cord injury received monetary compensation, and 35 percent are employed in meaningful functions without monetary compensation.

Although individuals rarely survive spinal cord injuries at the C-2 level, those persons sustaining injury at this level usually require ventilatory support (Falvo, 1991). A client is dependent on a ventilator when he/she is unable to breathe adequate levels of oxygen and/or carbon dioxide resulting in the use of an artificial mechanism that facilitates mechanical ventilation for long periods of time (Caine & Bufalino, 1988; Moorhouse, Geissler, & Doenges, 1987). Individuals who are dependent on a ventilator usually possess one or many catastrophic injuries. Each case is unique; therefore, no "cookbook" method for providing services to members of this population exists. Ventilator dependent persons with spinal cord injuries require comprehensive services to address medical, psychosocial, ethical and financial issues (Chawla, 1993; Deutsch & Sawyer, 1995). The adequacy of Home Care needs to be evaluated with this population since today's health care trend is to minimize one's exposure to the high cost of hospital care and to focus on sub-acute, long term care in the home (Deutsch & Sawyer, 1995). The work potential of members of this population is limited, but efforts are made to restore these individuals to gainful employment. The American Association for Respiratory Therapy (1984) reported in a survey of twenty states that 2200 patients were classified as dependent on a ventilator (cited in Deutsch & Sawyer. 1995).

Traumatic Brain Injury

Traumatic brain injury is a result of a physical injury or wound caused by an external force and is the number one cause of death between the ages of one and 38 within the United

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States (Thomas, 1989). The most common causes of traumatic injury to the brain are results of motor vehicle accidents (38%), falls (29%), bicycle injuries (6%), sports injuries (9%), and work-related accidents (4%) (Imes. 1985). The number of individuals with moderate to traumatic brain damage each year ranges between 40,000 to 70,000 (Bontke, 1990). Excluding damage to the brain caused by near drowning, heart attacks, stroke, aneurysms, reactions to various chemicals, and infections, over 700,000 Americans sustain injuries to the brain annually (Golden, Smith, & Golden, 1993). The leading populations of those sustaining trauma to the brain are primarily children, men, and those under the age of 35. Traumatic brain injury is prevalent among young men and women who are involved in establishing careers and families, and who are usually active in community functions (Willer, Ottenbacher, & Coad, 1994).

Over half of individuals sustaining traumatic brain injury were under the influence of alcohol during the accident. Approximately 54% of those injured use alcohol post-injury (Kwasnicka & Heinemann, 1994). Fatigue irritability, poorly controlled behaviors, and impaired attention are common sequelae of brain injury (Kwasnica & Heinemann, 1994; Wulz, 1993).

Severe Bum Injury

Burn injuries are destructive to tissue resulting from thermal, electrical, chemical and/or radioactive elements (Caine & Bufalino, 1988; Klein, 1993; Walt. 1982). Thermal burns, the most common type of burn, are caused by coming into contact with hot liquids or surfaces and fire. Electrical burns are caused by exposure to intense electrical charges or lightening (Falvo, 1991). Chemical burns are caused by direct contact with acidic substances or gases (Falvo). Radioactive burns have several causes. Radioactive burns result from ultraviolet sunrays, exposure to nuclear substance and overexposure to roentgenography. Over 2,230,000 new burn injuries occur annually in the United States (Deutsch & Sawyer, 1995). Persons with epilepsy, alcohol and other substance abuse, abused children, suicidal persons, and the careless have a higher risk of sustaining burn injuries (Brody & Johnson, 1980).

Multiple Amputations

An amputation is defined as the surgical removal of a limb, part, or organ (Thomas, 1989). Multiple amputations or bilateral amputations can be described as the severance of more than one limb. There are over 270,000 amputees (lower extremity) (Scremin et al., 1993; Rybarczy, 1992) and 91,000 amputees (upper extremity) within the United States (Deutsch & Sawyer, 1995). Several causes of amputations and the percentage distributions reported in two separate studies are: congenital (4.3 and 2.8%), tumor (4.5% from both studies), trauma (33.2 and 22.4%), and disease (58 and 70.3%) (Glattly, 1964, Kay & Newman, 1975; cited in Scremin et al., 1993, p. 350). Multiple amputations can be classified as bilateral upper, bilateral lower, or a single upper and a single lower. The bilateral upper extremity amputation results in significantly more vocational limitations than bilateral lower extremity amputations (Deutsch & Sawyer, 1995). Bilateral upper extremity complications can result in the following vocational limitations: restricted manual and finger dexterity, gross and fine manipulative skills, motor coordination, grip strength for grasping, use of small hand tools and power tools, lifting, carrying, and pushing (Deutsch & Sawyer, 1995).

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Content of the Life Care Plan

The Life Care Plan has two objectives: (a) to explicitly delineate all the relevant characteristics and needs of a patient who has sustained a catastrophic injury from the time of injury throughout his/her life, and (b) provide patient care guidelines to the individual with a disability and his/her family (Deutsch & Sawyer, 1995). Several elements should be addressed in the Life Care Plan. They include: (a) general equipment needs, (b) drug and supply needs, (c) therapeutic modalities, (d) diagnostic testing and educational needs, (e) wheelchair needs, (f) wheelchair accessories and maintenance, (g) orthopedic equipment needs, (h) aids for independent functioning, (i) home care/facility care,(j) architectural renovations, (k) transportation, (I) future medical care–routine and future medical care-surgical intervention or aggressive treatment, and (m) potential complications (Blackwell, Weed, & Powers, 1992; Deutsch & Sawyer, 1995). These elements are addressed in the Life Care Plan because they provide a comprehensive overview of the possible care needs of an individual sustaining a catastrophic injury.

General Equipment Needs

It is the responsibility of the Life Care Planner to indicate the available equipment that will be needed by the client. The Life Care Planner should be familiar with an equipment clearinghouse and catalog resources, and remain abreast of any current developments in assistive technology. Some examples of equipment needs include wheelchair maintenance and accessories, home furnishings or accessories, recreational equipment, canes, walkers, crutches, portable hydraulic lifts, emergency call switches, portals, and shower chairs (Deutsch & Sawlyer, 1995; Deutsch, Weed, Kitchen, & Sluis, 1989b).

Drug/Supply Needs

The Life Care Planner should examine in detail the current costs of drugs and supplies via research and consulting with pharmacists. Some examples of drug and supply needs include bed pans, incontinence pads, lubricants , antibiotics, gauze, adhesive tape, disinfectants, and a urine collection system (Deutsch & Sawyer, 1995; Deutsch, Weed, Kitchen, & Sluis, 1989b).

Therapeutic Modalities

Necessary therapeutic modalities for the person sustaining a catastrophic injury must be determined. The therapeutic modalities will be provided on a long term or as needed basis. The developmental age of the individual should be considered when assessing this factor (Deutsc Weed, Kitchen, & Sluis, 1989a). Some therapeutic modalities include but are not limited to individual counseling, group counseling, family therapy, marital counseling, physical therapy, occupational therapy, speech therapy, and behavior therapy.

Diagnostic Testing and Educational Needs

Diagnostic testing and education needs should be addressed within the Life Care Plan if prior diagnostic studies suggest that the client can benefit from such services. Types of diagnostic testing include interest inventories and aptitude batteries (Deutsch & Sawyer,

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1995). Types of educational needs and/or services include: tutoring, pre vocational training, vocational training, sheltered workshop participation, and self-help skills development (Deutsch & Sawyer, 1995).

Wheelchair Needs

There are numerous types of wheelchairs in existence. The selection of a wheelchair should consider the chronological age of the client. A listing of available wheelchairs include: premier standard wheelchairs, semi-reclining quad chairs, pediatric tiny tot wheelchairs (for ages two to six), stainless racing chairs, and quandra snowchair fitting with skis (Deutsch & Sawyer, 1995).

Wheelchair Accessories and Maintenance

Wheelchair accessories cater to the specific needs of each client. These accessories include a broad range of items such as: head rests, foot plates, battery chargers, commode attachments, safety bar kits, luggage racks, and oxygen tank carrying attachments (Deutsch & Sawyer, 1995). The cost for routine maintenance of these accessories is projected within the Life Care Plan, and such information is usually retrieved from the manufacturer.

Orthopedic Equipment Needs

A variety of orthopedic equipment assists in the enhancement of the patient's level of functioning. Types of orthopedic equipment include: full body suspension walkers, cerebral palsy walkers, crutches, parallel bars, positioning chairs, padded scooters, and adjustable height tables (Deutsch & Sawyer, 1995).

Aids for Independent Functioning

There are a variety of items that assist the individual in adapting to their disability. These items provide assistance with activities of daily living and vocational pursuits (Deutsch, Weed. Kitchen, & Sluis, 1989b). Aids for independent functioning can range from inexpensive equipment such as phone holders, speaker phones, and built-up pencils to more expensive items such as environmental control units or computer assisted devices (Blackwell, Weed, & Powers. 1994; Deutsch, Weed, Kitchen & Sluis, 1989b).

Home Care/Facility Care

It is imperative that an analysis of home versus facility care be conceived before the treatment plan is developed (Deutsch, Weed, Kitchen, & Sluis, 1989b). The level of care needed should be assessed. Care needs may vary from semi-skilled attendant care to specialized (skilled) nursing care (Deutsch, Weed, Kitchen, & Sluis, 1989b). Since the cost of home/facility care is the most expensive element in the Life Care Plan, a detailed analysis of the recommendations and conclusions is required (Deutsch, Weed, Kitchen, & Sluis, 1989a).

Architectural Renovations

Modification of the home environment must be conducted to accommodate the needs of the person sustaining a catastrophic injury. Necessary modifications in the home are needed to remove environmental barriers. These modifications include: widening doorways

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and halls, building ramps, lowering light switches, positioning unobstructive floor coverings, providing special furniture, renovating the plumbing, and renovating the angling of the mirrors (Deutsch & Sawyer, 1995).

Transportation

The Life Care Planner has to determine the transportation needs of the client. Special modifications or services may be required. Depending on his/her chronological age, the client may receive specialized or non-specialized transportation equipment. Transportation needs may include special safety car seats or a van with a wheelchair lift (Deutsch, Weed, Kitchen, & Sluis, 1989a). If the client can make appropriate transfers into a standard vehicle, the need for assistive devices has to be analyzed with subsequent application (Deutsch & Sawyer, 1995).

Future Medical Care-Routine and Future Medical Care-Surgical Intervention/Aggressive Treatment Plan

The Life Care Planner must determine which services are to be provided on a routine basis and which services will be provided only once, or over a brief period of time. The information required to make this determination is usually obtained from the rehabilitation professionals providing the services. Examples of routine services include: annual physical examinations, dental care, and eye examinations (Deutsch.. Weed, Kitchen. & Sluis, 1989b).

Potential Complications

The Life Care Planner must indicate any potential complications and their associated costs for treatment on the Life Care Plan. The Life Care Planner should list future potential complications ordered from those likely to occur less frequently to those likely to occur more frequently (Deutsch, Weed, Kitchen, & Sluis, 1989b). Some of the potential complications that could occur as a result of sustaining catastrophic injury include: skin deterioration, infections, contractures, and emotional /psychological trauma (Mayo, 1994).

Uses of the Life Care Plan

The Life Care Plan is used in several areas involving the care of the person sustaining a catastrophic injury including but not limited to: (a) managed care. (b) the determination of litigation outcomes, and (c) crisis prevention.

Managed Care

Managed care is forcing health care providers to operate at a higher level of financial risk and become increasingly responsible for the provision of" cost effective high-quality" care (Rosenstein. 1994). Managed care is a general term used to coordinate groups of doctors, hospitals, and other providers to improve the quality and cost-effectiveness of healthcare (Texas Medical Association, 1995). The groups of rehabilitation professionals are referred to as the interdisciplinary team or integrated network. The case manager has the responsibility of coordinating the services provided by the interdisciplinary team and facilitating effective communication between team members (Allred, Arford & Michel, 1995). Cost-effective healthcare within a managed care environment is dependent on the quality of the relationships

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among rehabilitation professionals (Allred, et al., 1995) and the potential to avoid conflicting interests centered around differing service priorities (Matkin & May, 1981). High quality and cost effective care also depends on successful coordination or teamwork by the interdisciplinary team (Allred, et al.). Health and human service providers' level of effectiveness rests on the comprehensive nature of the case management tool used to coordinate these efforts. Because healthcare payers are beginning to place the responsibility of financial risk and accountability in the hands of health care providers, it will become crucial for hospitals and physicians to both improve and document efficiencies of care (Rosenstein, 1994).

The Life Care Plan serves as a guide through the managed care process for the case manager of the person sustaining a catastrophic injury (Weed, 1995). The Life Care Plan allows rehabilitation professionals to record the health care needs of the client. It can also serve the purposes of improving the quality of health care. The Life Care Plan's flexible structure allows it to be tailored to the patient's plan of care and the insurer's funding criteria. Using the care plan as a patient management plan has proven to be effective (Sullivan, 1995).

The Determination of Litigation Outcomes

The rehabilitation professional is often called on to testify as an expert witness in court. The rehabilitation professional has to serve as an unbiased witness objectively stating the facts (Forge & Henderson, 1980). In the role of an expert witness, the rehabilitation professional assists the attorneys, jury, insurance adjusters, and other health and human service professionals to understand the comprehensive disposition of the catastrophic injury (Deutsch & Sawyer, 1995) and also assists the referral source to meet pre-determined objectives. In addition, as an expert witness, the rehabilitation professional is often expected to have assessed the impact of the injury on the family and construct a treatment plan for the person sustaining a catastrophic injury (Deutsch & Sawyer, 1995). An organized Life Care Plan helps the rehabilitation professional educate each individual involved in the case (Deutsch & Sawyer, 1995).

Crisis Prevention

The Life Care Plan also serves as a "crisis prevention" mechanism. The Life Care Plan presents an easy method to educate all of the individuals involved in a case. All concerned parties are educated and advised about implementing the plan so that symptoms can be detected early and responded to appropriately before they become critical (Deutsch & Sawyer, 1995, p. 7A.01). The Life Care Plan should be flexible to alterations at any time the needs of the person sustaining a catastrophic injury change.

The case manager and third-party payors need to always remember that lowering the short-term financial outlay may greatly escalate the need for future treatments, thereby increasing long-term expenditures significantly (Boling, 1992; cited in Blackwell, Weed & Powers, 1994). As a result, the Life Care Plan needs to be dynamic in nature placing emphasis on preventative measures. It should be updated and modified as the individual advances from acute to long-term rehabilitation and as the individual grows older (Blackwell et al., 1994).

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Perceived Job Functions of Life Care Planners

The job functions of Life Care Planners can be delineated via a thorough investigation of medical and vocational case management and Life Care Planning literature (Anchor, 1992; Blackwell, Weed, & Powers, 1994; Deutsch & Sawyer, 1995; Deutsch, Weed, Kitchen, & Sluis, 1989a; Gamboa & Hanak, 1991; Mayo, 1994; Provider. 1993; Quinn, 1993; Roessler & Rubin, 1992). These job roles include: (a) Life Care Plan development and (b) Life Care Plan consultation to the legal system. Also addressed are additional applications of the Life Care Plan emphasizing the Life Care Planner as a case manager.

Life Care Plan Development

Gamboa and Hanak (1991) reported the following Life Care Planning development functions: (a) acquiring knowledge about all the possible physical, cognitive, psychological, and social problems associated with various catastrophic injuries and disabilities; (b) identifying the client's type of disability, problems, and functional limitations; (c) determining the long-term care needs, required services for each need, and their associated costs for treatment; (d) coordinating the effort to fully identify the types and cost of services that will assist the client in maximizing his/her ability to function in society; (e) analyzing the client's medical, therapeutic, and educational history; (f) interviewing the client; (g) contacting the client's service providers and equipment suppliers to determine the costs of each item in dollars and how often the equipment should be replaced; and (h) identifying the base and lifetime cost for each piece of equipment. Each of these functions is necessary for developing the Life Care Plan.

Blackwell Weed. and Powers (1994) suggested the following medical case management functions associated with the development of the Life Care Plan: (a) to request all medical records; (b) to analyze medical records for establishing long-term goals; (c) to summarize all medical and non-medical care needs; (d) to review the client's medical history; (e) to organize the actions required by the Life Care Plan chronologically; (f) to consult with various treatment team members to identify long-term needs and options; (g) to obtain relevant information not within the client's file to include in the Life Care Plan; (h) to assist the client/family in identifying long term care needs and options; (i) to acquire information on substance use/abuse prior to the onset of the catastrophic injury; and j) to identify funding and community resources that will assist in meeting the long term care needs of the client.

Deutsch and Sawyer (1995) stated additional medical case management functions of the Life Care Planner in developing the Life Care Plan which include: (a) determining the client's ability to function independently; (b) "acquiring a clear understanding of the diagnosis, the date of the accident and an assessment of when the patient may be able to engage in rehabilitation, gainful employment or sheltered employment; (c) providing a subjective assessment of the patient's mobility, potential for development of ambulation, and potential for self-care" (pp. 7.03-7.04); and (d) projecting the costs of future evaluations.

Similar to Blackwell et al (l 994), Anchor (1992) added the following functions to the Life Care Plan developer role: (a) to review current catalogs and price lists for equipment in order to determine future financial needs; (c) to investigate economic trends to validly project the future costs for services and equipment needs; (d) to become familiar with a variety of local, state, and federal government data; and (e) to maintain a fundamental understanding

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of the current and projected costs of healthcare.

Provider (1991) explained that the development of the life care plan entails: (a) comprehensively examining all medical records, (b) interviewing the client and family in the home, (c) conducting a detailed evaluation of the client's vocational and educational abilities during the home assessment, (d) holding a meeting with the treatment team, and (e) providing detailed yearly costs of services needed.

Additional Applications of the Life Care Plan

The Life Care Planner can be used as a case manager to ensure the optimal delivery of care to a person requiring long-term care resulting from a catastrophic injury (Mayo, 1994). Often, the Life care planner will be retained to implement the care plan. Quinn (1993) addressed several case management activities with persons in long-term care resulting from sustaining a catastrophic injury. Many of these case management activities would be necessary for the utilization of the Life Care Plan. Some of those case management job functions mentioned include: (a) to suggest alternative strategies for managing each issue; (b) to direct the client toward the resolution of their problems; (c) to involve the family and client in the resolution of the problem; (d) to identify potential complications; (e) to place the client's decisions into an effective care plan; (f) to negotiate needed services with community service providers; (g) to arrange for services to be delivered as planned; (h) to discover creative means to finance a client's care plan; (i) to coordinate therapeutic services for the client; (j) to monitor the client's progress by regularly corresponding with the service providers; (k) to assist the client in obtaining service reimbursements; (1) to ensure the prompt and adequate delivery of services; (m) to adjust the levels of service as needed to maximize the use of resources for the client; and (n) to regularly reassess the client's case (Quinn 1993).

The Life Care Planner can operate in the role of a clinical consultant to the legal system. Such consultant functions include but are not limited to the following: (a) to consult with both defense and plaintiff attorneys to determine the needs of those requiring long term care (Anchor, 1992); (b) to recommend to the attorney additional professionals who can speak to the client's needs identified in the Life Care Plan; and (c) to maintain an unbiased approach to providing documents to various courts and other judicial functions (Blackwell, Weed, & Powers, 1994).

In addition, the Life Care Planner as a consultant to the legal system (a) provides the attorney with a life care plan to enable the attorney to efficiently document the disabilities and associated long-term needs of the client to the jury, (b) educates the jury on the effects of the catastrophic injury regarding the client's long-term needs, and (c) shows the relationship between medical records and projections of future disability related costs (Provder, 1993). The Life Care Planner also benefits attorneys by: (a) creating an outline of the Life Care Plan to guide the development of the case, (b) advising the attorney of additional rehabilitation professionals who would be able to assist in establishing the case, (c) assisting the attorney in assessing opposition witnesses' opinions and reports, and (d) serving as an expert to project the future care and costs of the client to the jury (Mayo, 1994).

The Life Care Planner also assists the defendant in a catastrophic injury case by: (a) helping the defense attorney in developing a case, (b) objectively assessing the plaintiffs future needs and costs, (c) assessing the plaintiffs loss in earning capacity and employability, (d) assisting in cross-examining the plaintiffs expert witness. and (e) objectively assessing

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the economic damages resulting from the injury (Provder, 1993).

Chapter V - Discussion

Summarv of Findings

The primary objectives of the present study were: (a) to identify the Life Care Plan development job functions of persons who develop Life Care Plans, (b) to examine whether a relationship exists between these job functions and the educational background of the rehabilitation professional who develops the Life Care Plan, and (c) to examine whether the Life Care Plan development functions are related to the types of disabilities for which the Life Care Planner develops Life Care Plans. The instrument used in this research was the 56-item Life Care Planning Job Task Inventory (LCPJTI) which was developed from existing literature in Life Care Planning and input from rehabilitation professionals currently practicing Life Care Planning. A demographic questionnaire was also utilized.

A factor analysis was conducted on the responses to the 56 job task items. Factor analysis yielded three distinct factors job functions associated with the development of the Life Care Plan. These job functions were: Assessing Client's Medical and Independent Living Service Needs, Vocational Assessment, and Consultant Services to the Legal System. Rehabilitation professionals with either a Vocational counseling educational background or a Nursing educational background were then compared on each factor via MANOVA and ANOVAs. A significant difference (via ANOVA) was found between the two groups on Factor I (Assessing Client's Medical and Independent Living Service Needs). However, the difference between the means of the two groups was small (i.e. Nursing educational background, x=5.49 vs Vocational counseling educational background, x=5.28).

As noted in Chapter IV, visual inspection was utilized to determine if there was a relationship between the frequency with which Life Care Plan development job functions were utilized and the combination of disabilities for which the greatest number of Life Care Plans were developed. Clear differences between the following disability combinations (multiple amputations and spinal cord injury, severe burn injury and traumatic brain injury (adult), and traumatic brain injury and kidney damage) and the remainder of the combinations of disabilities on assessing the medical and independent living service needs of the client factor could be observed. However, small N sizes discourage any conclusion that those differences are representative of the existence of such differences in the population of Life Care Planners.

Clear differences were also observed between the following disability combinations (multiple amputations and pediatric head trauma, and spinal cord injury and visual impairments) and the remaining disability combinations on Factor II (Vocational Assessment). Again, small N sizes were obtained which limits the conclusions which can be drawn.

Observable differences were seen between the following disability combinations (traumatic brain injury only and traumatic brain injury and kidney damage) and the remaining disability combinations on Factor III (Consultant Services to the Legal System). Again small N sizes discourage drawing definitive conclusions.

Comparisons with Previous Conceptualizations

While empirical investigations have been absent, many authors have hypothesized the job tasks of the Life Care Planner (Anchor, 1992; Blackwell, Weed, & Powers, 1994;

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Deutsch & Sawyer, 1995; Deutsch, Weed, Kitchen, & Sluis, 1989; Gamboa & Hanak, 1991; Mayo, 1994; Provder, 1993) within the literature. Both that literature and a panel of experts in the field of Life Care Planning were used to generate the content of the Life Care Planning Job Task Inventory (LCPJTI).

The current study identified three job functions (groups of job tasks): Assessing Client's Medical and Independent Living Service Needs, Vocational Assessment, and Consultant Services to the Legal System. Overall, that result is compatible with the job functions previously hypothesized in the non-empirical literature on the job tasks of the Life Care Planner. For example, the Assessing Client's Medical and Independent Living Service Needs job function identified in the present study is compatible with the Life Care Plan development job tasks relating to assessing the client's medical and independent living service needs as reported by Gamboa and Hanak (1991). Gamboa and Hanak listed the following as job tasks of the Life Care Planner:

1. Acquiring knowledge about all the possible physical, cognitive, psychological, and social problems associated with the injury
2. Identifying the client's type of disability, problems, and functional limitations
3. Determining the long-term care needs, required services for each need, and their associated costs for treatment
4. Coordinating the effort to fully identify the types and cost of services and that will assist the client in maximizing functional capacity
5. Analyzing the client's medical, therapeutic, and educational history
6. Contacting the client's service providers and equipment suppliers to determine the costs of each item in dollars and how often the equipment should be replaced
7. Identifying the base and lifetime cost for each piece of equipment

Although these job tasks were not derived via empirical research, the accuracy of Gamboa and Hanak's (1991) perceptions are supported by the current study. That support is further enhanced by the fact that the following items on Factor I (Assessing Client's Medical and Independent Living Service Needs) received the following mean ratings: (a) specifying the cost for physical therapy services (item 26,x=5.56), (b) determines adaptive equipment needs for the client (item 53, x=5.5 l), (c) determines costs of needed medical services in the patient's LCP (item 48, x=5.80), (d) determines the client's need for counseling services (item 49, x=S.50). (e) reviews current catalogs to determine the costs of assistive devices needed by the client (item 35, x=5.51), and (f) projects associated costs for non-medical diagnostic evaluations (i.e. recreational, nutritional) of the client (item 19, x=5.20).

Blackwell, Weed, and Powers (1994) have also hypothesized the job tasks associated with the development of the Life Care Plan. Factor I (Assessing Client's Medical and Independent Living Service Needs) of the current study is compatible with the following medical case management job tasks associated with the development of the Life Care Plan reported by Blackwell et al.

1. Requesting all medical records

2. Analyzing medical records for establishing long-term goals

3. Summarizing all medical and non-medical care needs

4. Reviewing the client's medical history

5. Organizing the actions required by the Life Care Plan

6. Consulting with various treatment team members to identify long-term needs and options

7. Obtaining relevant information not within the client's file to include in the Life Care Plan

8. Assisting the client/family in identifying long term care needs and options

9. Acquiring information on substance use/abuse prior to the onset of the catastrophic injury

10. Identifying funding and community resources that will assist in meeting the long-term care needs of the client

Each of these job tasks was reflected in detail within Factor I whose overall Factor I mean is 5.38 on a six point rating scale. For example, the Blackwell et al. job task item #3 was covered by the following items in the current study: (a) determines needed medical supplies (item 37, x=S.74), (b) determines the needs of the client for attendant care (item 54, x=5.65), (c) determines the client's need for counseling services (item 49, x=S.50), and (d) identifies the need for physical therapy services (item 14. x=5.54).

Deutsch and Sawyer (1995) perceived the following three medical case management tasks as job tasks of the Life Care Planner:

1. Determining the client's ability to function independently

2. Providing a subjective assessment of the patient's mobility, potential for development of ambulation, and potential for self-care

3. Projecting the costs of future evaluations

These job tasks were also supported by the contents of Factor I (Assessing Client's Medical and Independent Living Needs) as job tasks of persons developing the Life Care Plan.

The National Life Care Planning Institute (1996) delineated four case management related job functions and associated tasks of the Life Care Planner:

1. Patient and Family Consultation (counseling, educational and case management support, coordinate and facilitate resources)

2. Medical Case Management Consultation (document treatment resources, coordinate interdisciplinary team direction, provide a plan for on-going treatment)

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3. Trust Manager Consultation (identify scheduled needs and associated costs, document and justify necessary revisions control funds for appropriate treatments)

4. Economic Consultation (provide current values of specific damages)

These job tasks were compatible with job tasks in Factor I (Assessing the Client's Medical and Independent Living Service Needs) such as: (a) determines costs of needed equipment for the client (item 9, x=S.87), (b) determines the needs of the client for attendant care (item 54, x=S.71), (c) determines the client's need for counseling services (item 49, x=5.50), and (d) reviews current catalogs to determine the costs of assistive devices needed by the client (item 35, x=5.51).

Turning to Factor II (Vocational Assessment), Deutsch and Sawyer (1995) define the vocational assessment job function of the Life Care Planner as "assessing when the patient may be able to engage in rehabilitation gainful employment or sheltered employment". Factor II results in the present study are supportive of the existence of that job function as a major part of the role of the Life Care Planner. For example, Life Care Planning job tasks found on Factor II include: (a) assesses the client's need for vocational services (item 55, x=5.02), (b) identifies the need for long-term vocational/educational services (item 39, x=5.08), and (c) gathers a work history from the client (item 33, x=S.09).

It has been claimed that the Life Care Planner often serves as a consultant to those in the legal system. Anchor (1992) has suggested that a Life Care Planner consults with both defense and plaintiff attorneys to identify the needs of the client requiring long term care, and recommends to the attorney additional professionals who can speak to the client's needs identified in the Life Care Plan. The importance of both of these job tasks in the role of the Life Care Planner is supported by the job tasks found on Factor III (Consultant Services to the Legal System, x=4.l6) in the present study.

Mayo (1994) also reported the following as being legal system related job tasks of the Life Care Planner:

1. Creating an outline of the Life Care Plan to guide the development of the case

2. Advising the attorney of additional rehabilitation professionals who would be able to assist in establishing the case

3. Serving as an expert to the future care and costs of the client to the jury

The above job tasks were also supported by Factor III (Consultant Services to the Legal System) whose overall Factor mean of 4.16. Some of these job task items include: (a) assists with the development of information for settlement negotiations (item 21, x=3.99) and (b) consults with a plaintiff attorney to reasonably map out what long-term care services ·will be needed for a client (item 46, x=3.98).

The National Life Care Planning Institute (1996) delineated two court-related job tasks of the Life Care Planner:

1. Attorney Consultation (provide consultation specific to offers/demands, witness examination, and identify the extent of damages through a standardized process)

2. Claims Consultation (enhance the accuracy of setting long and short term reserves, recovery projections, and identifying associated claims costs and coverages)

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Attorney consultation was compatible with the job tasks in Factor III (Consultant Services to the Legal System, x=4.16). However, Claims consultation as a Life Care Planning job task was not supported by the present study.

Potential Use of Findings

The current study can be viewed as empirically clarifying the Life Care Plan development job functions of persons who develop Life Care Plans. This clarification can help guide the development of the content of the pre-service or in-service education program curricula in the field of Life Care Planning. Knowledge of the Life Care Planning job functions can also assist in establishing a standard job description of persons developing Life Care Plans. This standard job description can assist in establishing a job analysis based content guide for determining the appropriateness of content on any current or future credentialing examination for Life Care Planners.

Limitations of the Studv

The sample used for this research study consisted of the following populations:

(a) graduates of the Rehabilitation Training Institute who have obtained certification from the Commission on Disability Examiner Certification (CDEC), (b) rehabilitation professionals who have expressed interest in certification for Life Care Planning to the Commission on Disability Examiner Certification, (c) members of the National Association of Rehabilitation Professionals in the Private Sector who hold membership in the Forensic subdivision, and (d) members of the National Association of Rehabilitation Professionals in the Private Sector who hold membership in the Life Care Planning subdivision. The listings from the above populations are assumed to include a relatively representative sample of Life Care Planners. However, the extent to which these individuals are representative of the entire population of Life Care Planners is unknown. Therefore, the results of this study can only be generalized to the entire population of Life Care Planners with caution.

The Life Care Planning Job Task Inventory (LCPJTI) was developed by compiling a list of job tasks from: (a) Life Care Planning literature and (b) input from rehabilitation professionals. While every effort was made to include all Life Care Planning job tasks, it is unlikely that the LCPs contained an exhaustive list of Life Care Planning job tasks. Therefore, while the current study should provide a relatively comprehensive picture of the job functions of Life Care Planners, that picture may still have some undeveloped or "cloudy" areas which will have to be addressed by future research.

Recommendations for Future Research

Future research should address the relationship between Life Care Planning job functions and the source that has retained Life Care Planning services. A rehabilitation professional developing the Life Care Plan is retained by an attorney or an insurance firm. Both the attorney and the insurer have separate purposes for the Life Care Plan. The relationship between these purposes and the Life Care Plan development job functions of those doing Life Care Planning should be addressed in future research.

Over half of the respondents (54.3%) indicated they provided case management services for the client after developing the Life Care Plan. Future research should investigate

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the case management job functions after the development of the Life Care Plan. These case management functions could be infused into the content of the current curricula in Life Care Planning.

The return rate for the present study was low (25%). All of the respondents were rehabilitation professionals in private sector rehabilitation which may have contributed to the undesirable return rate. Some of the respondents indicated they did not have time to complete the questionnaire. Future research should consider this factor and possibly provide an incentive for returning the questionnaire. One possible incentive is offering continuing education units for the credential in Life Care Planning.

Finally, worthy of reporting are the results of the racial/ethnic identity of those developing the Life Care Plan and their clients. While the majority of the respondents reported having developed Life Care Plans for African-Americans and Asian-Americans. it is interesting to note that none of the respondents were "African-American" or "Asian American". Future research should be conducted investigating the racial/ethnicity of both the Life Care Planner and their clients. The Rehabilitation Training Institute should emphasize recruiting a more ethnically diverse population of Life Care Planners. Multicultural education should also be infused into the current curricula in Life Care Planning.