Managing Occupations in Everyday Life To Achieve Adaptation

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Key Words: activities of daily living • post-poliomyelitis syndrome • qualitative method

Objective. The aim of this qualitative study was to gain a deeper understanding of how persons with poliomyelitis sequelae manage their daily occupations in order to adapt to environmental demands. This was a study of adaptive processes and capability in everyday life.

Method. Interviews with 22 persons with poliomyelitis sequelae were content analyzed according to grounded theory.

Results. The analysis yielded 18 concepts describing adaptive strategies of participants. The strategies were arranged in six general groups: utilizing physical capability, influencing emotions, altering pattern of occupations, promoting concrete problem-solving, influencing relations, and facilitating future activities.

Conclusion. The strategies were interwoven, revealing different ways of reaching an adaptive balance in daily occupations for the present and the future.


In recent years, many persons who have had poliomyelitis have experienced the late onset of new symptoms, often referred to as postpoliomyelitis syndrome (PPS). The new symptoms include fatigue, muscle weakness, muscle atrophy, and muscle or joint pain and are seen in those who have a residual deficit from their bout with paralytic poliomyelitis (Gawne & Halstead, 1995). The mechanism of the syndrome has not been definitely ascertained, but possible etiologies and more effective strategies for its management are being explored (Halstead & Grimby, 1995). The new symptoms affect the ability to perform daily tasks, most commonly those related to mobility, ambulation, and stair climbing. With this recurring disability, persons who have had polio must develop a new adaptation process (Frick, 1985). Because adaptation processes are cumulative over time, the onset of new functional losses as in PPS cannot be isolated as a single, disease-oriented episode but has to be seen in the context of the person’s lifetime of experience. The new symptoms challenge persons to reexamine earlier expectations, beliefs, ideals, and goals (Scheer & Luborsky, 1991). These conditions make adaptational processes of persons with post-polio sequelae particularly interesting to study.

Occupational therapy has a long tradition of working with persons with disabilities and of facilitating adaptive outcomes in their daily living (King, 1978; Meyer, 1922/1977; Montgomery, 1984). Active purposeful participation in occupations, practice for real-life situations (Burke, 1984), the provision of adaptive equipment (Nordenskildö, 1994; Sonn & Grimby, 1994), the discovery of capabilities, and alterations to the environment are...
examples of how occupational therapy influences individual adaptation. Nevertheless, it is necessary to know more about how human beings adapt to a changing environment and how internal changes affect their capacity to act on the environment (Yerxa, 1987; Yerxa et al., 1989).

**Adaptation** is a concept used in many disciplines and is viewed from an evolutionary, biological, psychological, or sociocultural perspective (Coelho, Hamburg, & Adams, 1974). For this article, adaptation was defined as the process by which a person maintains a useful relationship to the environment (Coelho et al., 1974). According to White (1974), adaptation is neither a total triumph over the environment nor a total surrender to it, but rather a striving toward an acceptable compromise. All human beings have adaptive potential, but impairment and disability increase the degree of challenge. Adaptive resources are built up through evolution, development, and learning (Coelho et al., 1974; Montgomery, 1984).

**Coping** is a term sometimes used synonymously with adaptation (Gage, 1992). White (1974) distinguished between the two concepts by pointing out that adaptation is the master concept, whereas coping refers to adaptation under relatively difficult conditions. Coping is defined as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman, 1984, p. 141). This definition limits coping to conditions of psychological stress and excludes automatized behaviors and thoughts that do not require effort (Lazarus & Folkman, 1984). Hence, coping does not incorporate habits that are acquired from previous repetition but mainly operates at a preconscious level and influences a wide range of behavioral patterns (Kielhofner, 1995). In the occupational therapy literature, the term coping is used less often than the term adaptation (Kielhofner, 1995; King, 1978; Meyer, 1977; Montgomery, 1984; Nelson, 1988; Reed, 1984). The concept of adaptation provides a way of thinking about what happens when a disability worsens and changes the conditions for daily occupations.

Occupations are the ordinary and familiar things that people do every day (Clark et al., 1991), units of human activity that are purposeful, self-directed, and meaningful to the person who performs them (Yerxa et al., 1989). A central concern of occupational therapy is the process involved in orchestrating the daily round of activities so that a person can stay healthy, accomplish the necessities of life, and obtain satisfaction from daily living (Primeau, Clark, & Pierce, 1989). Adaptive strategies are closely connected to the achievement of life goals and life satisfaction and recently have been pointed out as an area worthy of future investigation (Clark et al., 1996). The purpose of the current study was to reveal strategies of adaptation as they were reflected in everyday life and to gain a deeper understanding of how people with poliomyelitis sequelae managed their daily occupations.

**Method**

This qualitative research study used the grounded theory method, which tends to be oriented toward action and process (Strauss & Corbin, 1991), to explore how people manage their occupations in everyday life. This inductive approach allows the participants to describe their thoughts and actions in their own words.

**Participants**

Twenty-two persons (12 women, 10 men), 40 to 66 years of age (M = 52.5 years) with reduced mobility or physical independence, according to the classification of handicap (World Health Organization [WHO], 1980), were selected from a population used in a larger longitudinal study of a volunteers with poliomyelitis sequelae (Grimby & Thorén-Jönsson, 1994). The selection of participants was guided by theoretical sampling (Glaser & Strauss, 1967), which meant finding participants with a wide variety of experiences. Thus, participants were selected step-by-step to obtain a group heterogeneous in age for onset of poliomyelitis; severity of involvement of polio and occurrence of PPS, defined according to a postpolio limb classification (Gawne & Halstead, 1995); use of assistive devices; profession; family members; and housing conditions. The study was approved by the Ethics Committee of the Faculty of Medicine, Göteborg University, Sweden.

Participants were between 1 and 30 years of age (M = 14 years, median = 7 years) at the onset of poliomyelitis. At the time of the study, they were 30 to 57 years (M = 42 years) after onset of poliomyelitis. Eighteen of the 22 had developed PPS. Five participants had no mobility devices; 4 always used a wheelchair; and 13 had walking aids, with 3 sometimes using a wheelchair for long distances. Participants’ capability in activities of daily living (ADL) was assessed by the Staircase of ADL (Sonn, Grimby, & Svanborg, 1996). Four participants had some dependence in personal ADL (i.e., feeding, continence, transfer, toileting, dressing, bathing), 18 were dependent in shopping, and 16 were dependent in cleaning. All participants were dependent on special arrangements or personal help in transportation.

**Data Collection and Procedure**

All participants were interviewed on one to three occasions in their own homes, except for two cases: one did not want to be tape-recorded, so comprehensive field notes were taken. Another preferred to be interviewed in the interviewer’s office. Interviews focused on descriptions of daily occupations, experiences, strategies, reasoning about how to manage occupations in everyday life, and thoughts about the future. By way of introduction, each participant was asked to describe an ordinary day. Each interview pro-
ceed in an informal, conversational style, lasting between 2 hr and 6 hr.

Data Analysis

Data from tape-recorded interviews and from field notes were consecutively content analyzed according to the coding processes in grounded theory (Strauss & Corbin, 1991). Concepts arising from data were both in vivo codes (i.e., those used by participants, such as “making cognitive maps” and “keeping a balance”) and sensitizing concepts (i.e., those developed by the researchers, such as “stretching the limits of physical ability”). Member checks (Lincoln & Guba, 1985) were regularly carried out during the interviews to improve the trustworthiness of interpretations and emerging categories. Repeated interviews, investigation in the home environment, observation of abilities in daily physical capability, influencing emotions, altering the pattern of occupations, promoting concrete problem solving, influencing relations, and facilitating future activities (see Appendix). The grouping was based on close examinations of the characteristics of each strategy and entailed integrating the strategies into a coherent whole, or the central phenomenon (Strauss & Corbin, 1991). The participants’ efforts to keep a balance for the present and the future emerged as the central phenomenon, which described what the strategies were directed toward. Striving to reach a balance was also explicitly expressed in data: “I try to get a balance in my everyday life.” Balance implied some kind of agreement between the person’s goals and abilities and the demands of the physical, social, and cultural environment. Because the environment is constantly changing (Coelho et al., 1974), this balance was dynamic.

Utilizing Physical Capability

Three strategies were focused on using physical capability to the utmost and efforts to train in order to increase or maintain capability: stretching the limits of physical capability, doing exercises, and developing or learning certain techniques. The strategies often seemed integrated in each person’s lifestyle.

Stretching the limits of physical capability. Participants stretched themselves to the limits of their physical capability by trying or persisting in doing activities as long as possible. This strategy, which was the most salient strategy of all 18 strategies and was used irrespective of degree of impairment, was found to have three properties.

First, participants who did not pay attention to body signals such as pain and tiredness allowed their “working day” to become overloaded, walked long distances, carried heavy things, and so forth. They were unable to find or see any other “way out” of carrying out occupations than pushing their physical capability beyond its limits. One woman stated:

I have a job I have to finish. I’m the only one who can do it... I wear myself out. I do, and I don’t know how to stop. As long as I carry on with this [job], I’ll wear myself out. I can’t see what else I can do.

Participants used this strategy in occupations that had important sociocultural meaning and that were of great value to them. They had a strong desire to achieve the occupations intrinsic to their life roles and to stay with previously established peer groups and leisure activities. The participants had the will and the habit to fulfill their own and others’ expectations with respect to all the occupations and roles in daily life. One of the men explained why he had not paid attention to the body signals: “The will is a good instrument for ignoring what happens in my body. I’ve been training this will since childhood because I’ve had [the disability] that I have.”

Second, some participants, such as those with new respiratory problems, found it difficult at first to interpret body signals such as headache, dizziness, and tiredness as signs of overloading. Difficulty in breathing caused a more distinct limit and prevented the use of the strategy, stretching the limits of their physical capability, in the long run.

In the third property, the participants were so involved and absorbed in an occupation that they were unaware of body signals. This state seems to correspond to Csikszentmihalyi’s (1975) notion of being in “flow.” A participant described that state when he visited exciting horticultural exhibitions covering long distances and forgot time and body:

I don’t feel just then that now I’ve overdone it, but carry on. It is so interesting, you just go on looking, you get further and further away and, in the end and afterwards, you have to swallow the bitter pill.

Doing exercises. Doing exercises was a conscious strategy directed toward increasing or maintaining physical capability. Exercise was an important strategy for recovery after the acute phase of poliomyelitis; the belief was that years of conscientious exercise would be rewarded with health. The strategy was usually still highly valued. Some participants took part in sport activities, carrying out their own training
programs to reduce specific impairments. Others emphasized that they tried to be consciously active in daily activities. One participant made sure that she exercised every day by choosing to live on the third floor of a building without an elevator even though she needed two canes for mobility. Some participants expressed an ambivalent attitude toward doing exercises. Since reading or hearing about PPS, they had reduced their exercising because of worry about overusing their weakened muscles.

Developing or learning certain techniques. This strategy was a way of utilizing one's remaining physical capability in order to carry on occupations. One woman with paresis in her arms and hands wove a pen in and out of her fingers to obtain a sufficient grip for writing. Some participants consciously invented another way to use existing muscle function, whereas others reported compensation techniques developed more unconsciously: “People say I do things in my own way.”

Influencing Emotions

Four strategies—optimistic thinking, minimization, avoidance, and wishful thinking—were used in everyday life either to maintain positive feelings or to reduce negative feelings. According to Lazarus and Folkman's (1984) coping theory, these strategies correspond to “emotion-focused forms of coping” (p. 150).

Optimistic thinking. Optimistic thinking meant having a bright view of one's situation and faith in one's ability. Participants who used this strategy expressed the importance of “taking it as easy as possible” and of “not fretting over what you are unable to do.” As one said: “You can't live in a negative way, putting a minus sign in front of everything, because then you'll find yourself thinking you're incapable of doing anything, and then, in principle, you can't manage anything.”

The participants emphasized that optimistic thinking influenced what they tried to do and succeeded in doing and, consequently, how they acted on and changed their programs to reduce specific impairments. Others emphasized that they tried to be consciously active in daily activities. One participant made sure that she exercised every day by choosing to live on the third floor of a building without an elevator even though she needed two canes for mobility. Some participants expressed an ambivalent attitude toward doing exercises. Since reading or hearing about PPS, they had reduced their exercising because of worry about overusing their weakened muscles.

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The participants emphasized that optimistic thinking influenced what they tried to do and succeeded in doing and, consequently, how they acted on and changed their own environment. A man with muscle weakness in his legs, arms, and back described his reasoning and how he succeeded in doing some carpentry in his house despite his disability: “I always try to do the things that need doing. The disability in itself is such a hindrance that you mustn't make more hindrances for yourself.”

Minimization. This strategy also served to maintain positive feelings. By comparing their present state of health with that immediately after the onset of poliomyelitis (“I've been lucky in lots of ways considering the original situation”) or by comparing themselves with persons with more serious disabilities (“you see that it's not so bad”), participants conceded that the present situation was preferable. Optimistic thinking and minimization occurred at the intrapersonal level; they sustained morale during everyday life.

Avoidance. The avoidance strategy occurred at the intrapersonal, interpersonal, and sociocultural levels. The aim was to manage negative feelings such as shame, resentment, and anxiety. At the intrapersonal level, the participants avoided thinking about the increasing disability. This was evident from phrases such as “disconnect,” “take one day at a time,” “live one day at a time,” and “don’t want to be reminded.”

At the interpersonal level, the participants avoided talking about or demonstrating their disability to others. They avoided asking relatives, coworkers, and others for help because they did not want to show that they were unable to perform all aspects of an activity. They also avoided using assistive devices because these symbols of disability and handicap made them look different from others. One man said:

I'll try to do it as long as I can, even though it's heavy, rather than ask for help and show that I can't do it myself....Going on crutches to work is absolutely inconceivable—never, you'd simply never get me to go there.

Avoiding at the sociocultural level meant not joining organizations for persons with disabilities (“I have enough with myself”) and not asking for help or assistance from the health care system (“They can't do anything. It's no use going there.”). This avoidance resulted in a lack of information and knowledge about different kinds of support. An explicit reason for not seeking help was the negative memories of the acute phase of their polio and the long periods of treatment, which lead participants to expect little from both the health service and society. In summary, avoidance was a common strategy used in many different occupations carried out in the family, workplace, and community in order to manage anxiety and negative feelings such as shame and resentment.

Denial is a phenomenon similar to avoidance (Lazarus & Folkman, 1984). One man whose mobility had deteriorated rapidly because of PPS denied his obvious difficulties in transferring to and from his wheelchair and in performing personal care activities. His wife had arranged a telephone service in case he needed help when he was alone, but he saw no need for this assistance.

Wishful thinking. Some participants did not deny their difficulties in daily occupations but hoped that they were temporary. The strategy of wishful thinking served to reduce negative feelings by maintaining hope. It also prevented participants from making changes or choosing other strategies to solve real difficulties—in short, it prevented adaptation. One participant who lived in a third-floor apartment without an elevator reported that he had long felt increasing weakness, pain, and fatigue: “You think it's only temporary, but it wasn't, you got an uneven load on the back and then you got sciatica and overloading.” While hoping to get better, he had postponed planning for a better apartment.
Altering the Pattern of Occupations

This category consists of three strategies. Giving up occupations and setting priorities are strategies focused on reducing demands in the person–environment relationship. The strategy of restoring activity and role balance makes up for lost occupations.

Giving up occupations. Some participants gave up or stopped participating in occupations that were too physically demanding, a strategy either consciously or unconsciously executed. The strategy was unconscious when participants just skipped activities (e.g., leisure activities) and realized later that they had lost them. The strategy was conscious when participants gave up an activity after assessing how physically demanding it was and acknowledging that it would lead to overloading. Giving up occupations was not always easy. It implied resigning oneself to modified goals, could create feelings of frustration and helplessness, and could affect occupations within the family:

You just feel rather unhappy when you can’t do it. My wife has to do all the hard work for me. You let another person do what you would have done if you’d been well, and of course that doubles that person’s workload.

Setting priorities. The most active and conscious way to reduce occupations was to set priorities. Participants assessed how physically demanding different social roles or occupations were and how valuable they were to themselves or their family members. The judgment processes were based on insight into the effects of their impairment or disability, an understanding of how demanding earlier patterns of activities had been, and the need for change. The participants stopped doing things that were too physically demanding or had low priority, choosing instead occupations with a higher priority. For example: “I found it so tough to go down and work, it was a strain on my whole body, so I preferred to try and manage things at home, and I do, but at my own pace.” The choice of occupations was highly individualized. Earlier priorities might be reevaluated. Another participant stated: “Being a good housewife was important before...[but] I don’t bother about it anymore. My job is terribly important, and anything that takes time and energy from that is an obstacle.”

Restoring activity and role balance. To make up for lost occupations, given up because they were too physically demanding, participants chose more amenable activities. One man said:

I have to go in for something else instead. It’s a kind of replacement, of course, instead of keeping up with first one thing then another. I must feel I have achieved something every day, got something done, otherwise I don’t feel good.

The chosen activities were either new to the participant or were included in the earlier pattern of activities or sphere of interest but were now more developed and important. Behind the choice was a desire to have something to do, to be occupied. Participation enabled participants to “learn new things,” “develop interests,” “come in contact with other people,” “get a feeling of satisfaction that one is able to do something good,” and “win appreciation from others.” This finding is in tune with the core assumption of occupational therapy that humans need purposeful activity (Clark et al., 1991; Meyer, 1977; Reilly, 1962; Trombly, 1995; Yerxa et al., 1989).

Promoting Concrete Problem Solving

Four strategies—making cognitive maps, compensation, orchestrating activities, and asking for assistance—dealt with concrete problem solving in daily occupations. The problem solving comprised thinking, planning of tasks, use of equipment, and help from other persons.

Making cognitive maps. This strategy involves carefully thinking through a situation in advance, to plan solutions for potential problems or to avoid a situation where their independence could not be assured. The strategy involved three steps: (a) comparing one’s ability with the demands of both the occupation (as a whole or in part) and the physical environment, (b) thinking through available solutions, and (c) making a plan or map of how to cope with the situation. Some participants made cognitive maps frequently and intensively. The strategy created two different kinds of emotional consequences: one derived from the cognitive process and the other from the outcome of the experience itself. For example, making cognitive maps gave some participants a positive feeling of being able to influence and control their situation, resulting in a feeling of security. Others reported feeling anxiety and discomfort because the maps were a concrete reminder of their disability. And to some, making cognitive maps was “psychologically taxing” because being occupied with all these thoughts deprived them of other, more stimulating occupations.

Making cognitive maps could produce a feeling of satisfaction if the outcome of the plan was positive or could produce irritation and resentment if the outcome was failure. How successful the map was depended on how realistic a “picture” the participants had of their own ability and how predictable the situation was. If a situation could not be foreseen (e.g., the physical environment on a journey), the cognitive process was characterized by anxiety and a loss of positive expectations. The cognitive map was an important incentive for other problem-solving strategies, especially for orchestrating occupations and compensation.

Orchestrating occupations. Participants were engaging in orchestrating their occupations by simplifying their routines, tasks, and activities; selecting the elements of the activities that they were capable of doing; and coordinating tasks with others. Coordination of parts of tasks was allotted to family members as well as to social services workers; thus, other persons had to be available for this strategy. The participants developed habits and routines that saved time and energy, thus facilitating their coordination with others.
For example:

I do my telephoning in bed in the morning...the receiver lies on the pillow and I don't have to hold it and that makes it easier. Different institutions often have their telephone hours in the morning, so I can ring them and they can ring me.

The strategy had the following properties: spreading a task over a longer period, simplifying or rationalizing tasks, selecting elements of tasks to do, coordinating tasks with other persons, allocating tasks, and paying for services. These were used to keep control of occupations in everyday life and to fulfill occupational role expectations.

Compensation. This strategy required participants to compensate for their difficulties through use of selected objects in the environment. The participants first tried to solve difficulties alone with simple, available objects mostly discovered in urgent situations, when necessary tasks seemed impossible to perform. One participant explained: “Necessity is the mother of invention.” If available objects did not work, the participants bought or constructed their own solutions (devices). This strategy was generally described in a positive way. For example: “Don’t just push [the problems] aside—really tackle them, because then they aren’t problems anymore when you...find a solution.” After the participants sought their own solutions, they tried using the services provided by society. Initially trying their own solutions was especially true for participants who had had no previous involvement with service providers or who had low or negative expectations of help from society and the health care system. There was a great difference in the use of assistive devices between those who had and those who lacked an established contact with the health care system (e.g., occupational therapy practitioners). Relatives and members of associations of persons with disabilities could be support persons and play an important part in mediating these necessary contacts and in pointing out possibilities. The process of using social services was often long and drawn out, especially if a new assistive device was requested as a means of dealing with decreased mobility, as illustrated in the following excerpt:

[The shoulder] began hurting and then they [the occupational therapists]...thought I should have an electric wheelchair. I fought against it, “Over my dead body,” I said. It took ages before I let them give me one. I thought it felt like slipping backwards a bit, but I’ve changed my mind.

Asking for assistance. The properties of this strategy were asking for help, finding oneself pleased to have help, searching for information, and taking the initiative and making demands. Participants had avoided asking for assistance earlier in life, but a marked change occurred during the adaptation process when the participants integrated their changed capability into their self-conception (Gergen, 1971). The participants moved from not being able to ask for help, even if they wanted and needed it, to asking for help, informing others about difficulties and making demands. One woman explained: “I’ve simply realized that the best thing for me is to ask for help. I never used to do that before; I used to do everything myself.”

Influencing Relations

Two strategies—doing things to attract attention and making contact—focused on influencing relations with other people to affect their preconceived notions about persons with disabilities. The strategies were not directed at close relations or friends but at people in their work life and in the community.

Doing things to attract attention. Participants tried different ways to be regarded as competent and not just as “disabled.” Achieving competence and recognition in an occupational role was a strategy that had been important in previous years when participants first went to work. A woman said: “I’ve always been prepared to work and struggle...it’s important to show that you can do it.” One reason for using this strategy, according to participants, was to change the general low expectations the public had of persons with disabilities; another was to change the assumption that anyone using a wheelchair was mentally retarded. One of the participants stated:

There are a lot of mentally retarded people living here who use a wheelchair, and I thought, “Help, now they’ll think I’m like that, too.” People have that kind of attitude sometimes. They talk over the top of my head and think I don’t understand.

This strategy included making people notice you (participants reported that they felt “small” sitting in a wheelchair), and having people recognize you as a competent person. One woman described:

First, you’ve got to look pretty...I don't dress in elegant clothes but dress to attract attention with lots of color and things...so the colors cry out, “Here I come,” and I sure will be noticed. It’s probably because I don’t want to be pushed aside, but want to be seen, and then you try to look different, so you can sit in a wheelchair and still do everything all the same.

This part of the strategy is in contrast to the interpersonal avoidance described above, when participants did not want to be seen because of their disability.

Making contact. This strategy involved two different methods: taking the initiative and “playing the waiting game.” Taking the initiative in creating contact was a way to bridge the hesitation or fear that people might feel when faced with a person with disabilities. As one participant put it: “People look slightly frightened sometimes when you come along in your wheelchair...you can see that in people’s eyes...I feel that I probably have to react here somehow to show I’m not something peculiar but that I’m an ordinary person.” Playing a waiting game was used to avoid frightening others and to let people make contact at their own pace:

Attitudes toward disability make an impact...It’s important to let [contact] happen in other people’s own time. People are put off by overhearty disabled persons who immediately take command of others and demand help in a masterful manner. I want to wait and see...but, of course, I can dread being left sitting all alone.
Facilitating Future Activities

Two strategies were directed toward a long view: planning for the future and informing and making demands. Knowledge of both PPS and possible solutions seemed to boost participants’ planning for future activities.

Planning for the future. Participants were required to make long-term plans in light of the change in symptoms, to think through needs for the future, and to take measures in order to meet these needs; however, the importance of planning was viewed differently among participants. Some thought it was important to plan, whereas others said they avoided feeling anxious about the future. Still others thought planning “is something you have at the back of your mind and it happens more or less unconsciously.” In the data, planning for the future often referred to seeking housing and gainful employment:

I’ve tried to look ahead, just as you do when you play chess, and see what might be needed in 2 or 3 years...that stuff with computers is very good for me because I’ll be stationary then, you see.

Informing and making demands. This strategy required participants to inform other people, institutions, or public authorities about their difficulties (e.g., obstacles in the physical environment) to improve conditions for a whole group of persons with disabilities. The participants acted as advocates or spokespersons for a group in order to influence long-term community planning at different levels, thereby improving the opportunities for persons with disabilities to participate in activities in the community.

Discussion

Types of Strategies and How Chosen

The aim of this study was to reveal strategies that persons with postpolio sequelae used in everyday life to manage their daily occupations and achieve adaptation. Results showed that the 18 strategies identified in this sample were interwoven and were both conscious and relatively unconscious. Sometimes they were chosen habitually, and sometimes they were chosen through careful appraisal of beliefs and commitments, depending on whether the situation was perceived as stressful. The strategies relied on previous habits and used skills developed for competence in everyday life and applied to new demands. Hence, adaptation in this study included coping, which, according to White (1974), may be seen as adaptation under more difficult conditions.

According to Lazarus (1993), there are two major forms of coping: problem-focused and emotion-focused. First, strategies may be used to change the troubled person–environment relationship for the better, either by changing one’s own actions or by changing the environment. Second, strategies can focus on regulating the emotional response to the problem. Our results correspond with this broad summary of strategies. The strategies identified in this study of promoting concrete problem solving, influencing relations, and facilitating future activities were problem focused. Utilizing physical capability to the fullest in order to act on the environment might also be seen as a problem-focused group of strategies. Altering the pattern of occupations might be seen as another problem-focused group of strategies in a broad sense because the person, by resigning himself or herself to modified goals and by making reappraisals, can reduce demands in the person-environment relationship. The predominance of problem-focused strategies found in our study differed from the findings in the coping literature, where emotion-focused strategies dominate (Lazarus & Folkman, 1984). The fact that our study was concerned mainly with how to manage occupations to achieve adaptation, and less with the participants’ thoughts and emotions, could explain this difference.

Consciously chosen strategies were preceded by two cognitive processes: primary appraisal and secondary appraisal (Lazarus & Folkman, 1984). Primary appraisal consists of a judgment of what is at stake for the person. Secondary appraisal is a complex evaluative process concerning what might and can be done. It takes into account what options are available and whether one can apply a particular strategy or set of strategies effectively. Hence, thinking was one important component in adaptation. However, in everyday life participants did not always think about their own behavior. Their attention was directed to their tasks and what they needed to do to fulfill goals and role expectations. Another reason for unconscious strategies was the interplay among the strategies. The choice of one strategy might exclude another because they were inconsistent. Avoidance at the intrapersonal level could not be combined with strategies that required thought and planning in the same problem area. One strategy might also be an outcome of another. If concrete problem-solving strategies (e.g., making cognitive maps, asking for external assistance) were repeatedly blocked, two outcomes that were not consciously chosen resulted: either the participant had to utilize his or her physical capability still more or occupations had to be given up. If these conditions prevailed for a long time, the participant might become physically overloaded or lose some occupations, which might result in withdrawal from some aspects of social life.

Hence, there are several reasons why stretching the limits of physical capability was the most salient strategy. Persons with poliomyelitis sequelae have been described as “overachievers” (Young, 1991), hard-driving people who deny their physical limitations (Gawne & Halstead, 1995; Maynard & Roller, 1991). Not paying attention to body signals might be interpreted as a denial of physical limitations or lifelong adaptation to pain. One should bear in mind that experience of disability in early life still has an important impact in adulthood (Thorén-Jönsson & Möller, in press). Scheer and Luborsky (1991) identified
two major cultural contexts of polio biographies: normative life course expectations (i.e., disrupted life course) and traditions associated with polio rehabilitation and expectations in the society. Early polio prescriptions were to work hard, forget the polio, minimize physical limitations, and try to do everything that persons without disabilities did. Such values influenced personal identity and the ways that persons with poliomyelitis interpreted and experienced new functional losses associated with PPS (Scheer & Luborsky, 1991). It is in the light of such experience that the choice of strategies, such as stretching the limits of physical capability and avoidance, should be seen. When physical capability decreased because of PPS, but the participants continued performing according to their former level of capability and early polio prescriptions, this behavior affected and eventually diminished their physical capability (Gawne & Halstead, 1995). If the person could not find an acceptable alternative other than stretching the limits of his or her physical capability and had no social support to provide solutions, the result could be overload, pain, fatigue, and inability from which the person could not escape without help.

**Adaptation**

The strategies illustrate the participants’ various attempts to keep some kind of balance among goals, capabilities, and environmental demands in daily occupations. The strategies were focused on fulfilling or modifying goals, utilizing physical capability to the utmost or compensating for decreased capability, and making efforts to influence and change the environment. Every participant did not use all of the strategies. The findings of overload and withdrawal from aspects of social life indicate that balance might be difficult to achieve. Adaptation to an ever-changing environment with the additional challenge of loss of abilities was complex and could be slow, particularly when coping with lifestyle changes.

Adaptation was defined as the process by which a person maintains a useful relationship to the environment (Coelho et al., 1974). The results from our study indicate that this useful relationship can be seen as some kind of balance among goals, capabilities, and the environment. These correspond with Pörn’s (1993) concept of health and adaptedness as a relation among the repertoire, an organized collection of abilities to act; the environment; and the goal profile of the person. Pörn’s concept of health is based on a view of the person as an acting subject who has abilities to achieve vital goals (Nordnfeldt, 1996; Pörn, 1993).

Our study confirms that persons with poliomyelitis can influence their health (Pörn, 1993) by using a variety of strategies. Flexibility in strategy use might be more adaptive in a changing environment than relying on one or several strategies. Consciously chosen strategies, acknowledging personal goals and based on awareness of one’s capability and environmental demands, seemed more adaptive than habitually or unconsciously chosen strategies, particularly during a process of change.

Both the results of this study and the supporting literature (King, 1978; Montgomery, 1984; Scheer & Luborsky, 1991; White, 1974) state that adaptation in everyday life is a long-term, developmental process involving multiple dimensions. This statement indicates the importance of a lifetime perspective. Whether a strategy is adaptive or maladaptive in both the short term and long term cannot be determined in relation to objective outcomes such as, for example, muscle strength. Rather, it is important to consider a person’s desired life goals (Larson, 1996) and conception of self (Gergen, 1971; Thorén-Jönsson & Möller, in press) and to bear in mind White’s (1974) statement: “No strategy that is careless of the level of self-esteem is likely to be any good” (p. 161).

**Implications for Practice**

The findings in this study signified that meaningful goals and valued social roles were more important than physical limitations because participants developed strategies to overcome their decreased capability. Occupational therapy intervention should be designed to assist the person to achieve a balance among goals, capability, and environmental demands in daily occupations (Yerxa, 1998). The 18 strategies indicate the variety of ways that persons with polio sequelae tried to achieve this balance and may be helpful in assessing and promoting adaptive behavior.

According to Parham (1987), both language and logic are needed to identify and articulate a problem (name it) and to plan a means of altering the situation (frame it). The 18 strategies described previously may be seen as a step in this “naming and framing” in order to stimulate clinical reasoning (Mattingly, 1991) and facilitate collaboration with clients. Practitioners should be able to recognize strategies from a client’s life history and describe them with the aim of helping clients to pay attention to their own behavior. Awareness of one’s own behavior is foundational to facilitating adaptive behavior.

It is important to recognize that the interplay among strategies may lead to lack of information. By providing appropriate information about, for example, assistive devices and environmental modifications, practitioners can help clients to manage their own environment. Information about possible solutions will enlarge their universe of choices, can be incorporated into their cognitive maps, and can lead to other adaptive strategies, such as compensation and planning for the future.

When clients need guidance on how to change their lifestyle in order to save energy (Young, 1991), it is important to notice the difference between giving up occupations and setting priorities. Though both may imply altering the pattern of occupations, the former might result in a feeling...
of frustration and incompetence, whereas the latter, which involves consideration and choice, generally results in a positive feeling of being able to influence and control one's situation. An understanding of each client's perception of his or her life history and personal values and goals is required before helping the client make lifestyle changes and use adaptive strategies.

**Conclusion**

Adaptation to an ever-changing environment with the additional challenge of loss of abilities is complex and can be a long process, particularly when coping with lifestyle changes. By identifying and emphasizing the client's problem-solving efforts and energy-saving strategies, occupational therapy practitioners confirm and facilitate the person's ability to make changes in daily occupations and strengthen feelings of agency, mastery, and competence (Burke, 1977; Montgomery, 1984). ▲

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**Appendix**

**Strategies for Managing Occupations in Everyday Life**

1. Utilizing physical capability
   - Stretching the limits of physical capability
   - Doing exercises
   - Developing or learning certain techniques
2. Influencing emotions
   - Optimistic thinking
   - Minimization
   - Avoidance
   - Wishful thinking
3. Altering the pattern of occupations
   - Giving up occupations
   - Setting priorities
   - Restoring activity and role balance
4. Promoting concrete problem solving
   - Making cognitive maps
   - Orchestrating occupations
   - Compensation
   - Asking for assistance
5. Influencing relations
   - Doing things to attract attention
   - Making contact
6. Facilitating future activities
   - Planning for the future
   - Informing and making demands

**References**


**Scandinavian Journal of Occupational Therapy.**


