■ **ORIGINAL ARTICLE**

An Interactional Model of Mental Disability (IMMD) Based on the International Classification of Functioning and Disability (ICIDH-2)

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Abstract: Some models based on the International Classification of Impairments, Disabilities, and Handicaps (ICIDH) are being put forward and tested world-wide for various objectives. An Interactional Model of Mental Disability (IMMD) is proposed here as a new practical rehabilitation model based on the ICIDH and the International Classification of Functioning and Disability (ICIDH-2). The IMMD provides a basis for understanding the interaction of mental disabilities (impairments, disabilities and handicaps) and other factors (environmental factors, personal factors). The other feature of the IMMD is that it provides a recording format for a practical application of the model. From our experience with the IMMD, we conclude that it is useful for understanding the client's condition and disability, for setting goals and implementing a team approach for professionals, and for helping the client understand his/her own condition and the services provided.

Key words: ICIDH, model of disability, rehabilitation model, IMMD

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Introduction

In Japan, the major shift in medical concern from the treatment of acute diseases to chronic diseases has highlighted the need for early medical rehabilitation, social rehabilitation, or both to focus on the quality of life of people with disability. The functional management of daily living, not only the treatment for disease, has become the goal of rehabilitation. Disability should also be classified so that consequences associated with health conditions can be systematically grouped.

The World Health Organization (WHO) first issued the International Classification of Impairments, Disabilities, and Handicaps (ICIDH) in 1980 for trial purposes. The ICIDH-1980 (WHO, 1980) contains a classification of disabilities that systematically groups consequences associated with health conditions. The ICIDH-1980 has been used to collect data for the evaluation of health care delivery, policy and

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financing. The educational value of the ICIDH-1980 has been to raise awareness of the consequences of health conditions and people's participatory rights. However, in daily psychiatric clinical contexts, the ICIDH-1980 is less useful as a clinical rehabilitation tool.

We have therefore developed a new practical rehabilitation model, which we call an Interactional Model of Mental Disability (IMMD) based on the ICIDH-2 (WHO, 1997; 1999), and which also includes a team conferencing work sheet and a self-assessment sheet to facilitate application of the IMMD to rehabilitation practices.

Transition and Problem of a Model of Mental Disability

In Japan, Ueda (Ueda, 1980) introduced a model which was an adaptation of the ICIDH-1980. Since, a structural model for mental disability had long been a subject of discussion in the Japanese psychiatric domain, the Ueda model gave rise to a lively debate. A few models (Hachiya, 1981; Utena, 1985; Anzai et al., 1984) have been proposed to explain and classify mental disabilities, but there have never been enough consensuses to establish a common language and concepts. After the 1988 and 1995 revisions of the Japanese Mental Health Law, heated discussions among rehabilitation professionals about models for mental disability have become commonplace (Yamane, 1997; Asano, 1999; Tomioka, 1999).

The 1988 and 1995 revisions of the Japanese Mental Health Law led to rapid changes in the rehabilitation and medical treatment of mental patients. The new law has placed special emphasis on the human rights of the mentally ill and the social participation of people with mental disabilities. In order to facilitate the implementation of these concepts, a commonly accepted classification of disability is required for a model that enables communication about health conditions in various disciplines.

The ICIDH is helpful for making a distinction among impairments, disabilities and handicaps as separate concepts and is useful for health care practice, administration, research, education and policy. However, some problems with the 1980 model (Fig. 1) (WHO, 1980) are:

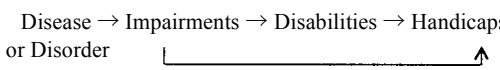

Fig. 1. Disablement phenomena in ICIDH-1980 (WHO, 1980)

1. Impression of model
   It is a medical model that incriminates disease as disability.
2. Visual representation
   The arrows linking disease or disorder, impairments, disabilities and handicaps in Figure 1 has been interpreted as representing a causal model and as indicating a change over time. This representation thus implies a unidirectional flow from impairment to disability to handicap.
3. Effects of personal factors and environmental factors
   Personal factors such as individual abilities and environmental factors play an important role in the disability process because of their interactions with all three dimensions of the classification. Therefore, their effects should be included in the figure.
4. Content
   It is difficult to clearly differentiate between impairments and disabilities.
5. Terminology
   There is considerable disagreement concerning the terminology of the model, particularly words like handicaps and disabilities, which are thought to have negative connotations.

In the last decade, some studies (Polatajko, 1992; Martini et al., 1995; Fougeyrollas, 1993; Japanese Association of Psychiatric Rehabilitation (JAPR), 1996; 1997) have concentrated on improvement on the ICIDH-1980 or a better fit for the occupational therapy and the psychiatric domain. Yamane (1996, 1997) has described some structural models for psychiatric diseases and disabilities in which personal factors, such as individual abilities, environmental factors, and details of mental disability, are reflected.

WHO devoted an annual conference to the

revision of the ICIDH hosted by the WHO Collaborating Centre in Paris in 1995 (WHO, 1995). Since then, the overall concept (Fig. 2) of the current version of the ICIDH-2 (WHO, 1997; 1999) has been introduced for field trials. The following problems of this revised version have been pointed out (Yamane, 1999):

1. Although the ICIDH-2 is generally expressed in non-judgemental terms without undue negativity, it includes one negative term, *impairment*. The term *impairment* was changed to body *functions and structure* in the Beta-2 Draft (WHO, 1999).
2. It does not adequately reflect interactions among disabilities.
3. There is some confusion about terminology because *activity* and *participation* have been defined differently from their commonly accepted definitions.
4. The relationships and meanings indicated by arrows showing the effects of *Environmental Factors* and *Personal Factors* in the ICIDH-2 Beta-1 and Beta-2 Drafts need to be made more explicit.

The ICIDH-2 will be completed by the end of the year 2001 following the results of the field trials. Various models based on the ICIDH-1980 and the ICIDH-2 are now being put forward and tested on a world-wide basis for various objectives (e.g., Fougeyrollas, 1993; Yamane, 1996; 1997; Arizuka, 1995; Ueda, 1996; Nakazawa, 1996; Ohashi, 1997).

Characteristics of the Principal Models

Let us first analyze the characteristics and limitations of the principal models based on the ICIDH. The Canadian model (ICIDH-PR model) (Martini et al., 1995; Fougeyrollas, 1993) is an explanatory model of the consequences of disease and trauma. The Canadian model highlights the nature of handicaps as the situational result of an interactive process between the characteristics of a person's impairments, disabilities and the social and environmental obstacles in a given situation (Fougeyrollas, 1994). The latest Canadian model shows the interrelationships of personal factors (organic systems and capabilities), environmental

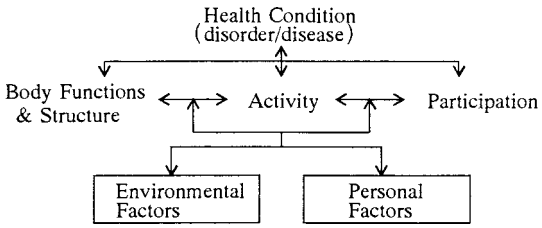

Fig. 2. Current interactions of ICIDH-2 (Beta-2 Draft)

factors and life habits, but not the interaction of impairments and disabilities, and the schema itself is complicated.

The Yamane model (Yamane, 1996; Yamane, 1997) accounts for the interaction between disabilities and the effects of environment and individual ability. In the Hirosaki (Arizuka) Model (Arizuka, 1995), individual capability while in good health and handicaps before illness are considered. Although this model shows the interrelationships among disabilities and other factors in a manner which is useful for grasping the concept of disability, the figure is too complicated for clinical use.

Characteristic of the revised Ueda model (Ueda, 1996; Ueda, & Okawa, 1998) is that it views illness and disability as forms of experience. In the revised model, Ueda explains that disabilities influence each other (Ueda, 1996), but the vectors in the figure are one-directional and thus made the model appear as a causal model. The vectors showing the relationships among mental disabilities are bi-directional and the influence of reverse vectors on mental disability is larger than Ueda suggests (Utena, 1985; Asano, 1999; Nakazawa, 1996).

The Nakazawa model (a spiral model) (Nakazawa, 1996) tries to depict "the difficulty of living" (Utena, 1985). Heated arguments were exchanged between the proponents of the Nakazawa model and of the Ueda model (JAPR, 1996). The former model shows how difficulties of living are generated. The Ohashi model (Ohashi, 1997), on the other hand, attempted to describe many different patterns of interaction of environmental factors. This model is made up of

nine visual representations. It is unique in that it illustrates the situation associated with individual disabilities, but it is difficult to execute because of its conceptual modality.

All these models, which are revisions of the mother model in the ICIDH, focus on different aspects of disability for various objectives. However, none of the models are clinical, only conceptual.

Necessity for a Practical Rehabilitation Model of Mental Disability

Some have suggested that the WHO should publish an officially authorized "Mother Model" of ICIDH-2, such as shown in Figure 2 and introduce various versions based on the "Mother Model" (Japan ICIDH-2 Field Trials Planning Committee, 1998; Nakazawa, 1997; Sato, 1996). In order to apply a model of disability to psychiatric rehabilitation practices, it is necessary to define the characteristics of mental disability. In contrast to physical disabilities, characteristics specific to mental disability (Utena, 1985; Anzai et al., 1984; Asano, 1999; Yamane, 1997; Nakazawa, 1996; Sato, 1996; Lin, 1991) are:

1. Disease coexists with disability. To deal with the fact that disease coexists with disability, both the treatment of disease and the rehabilitation of disability in daily living should be performed at the same time.
2. Secondary disorders may surface because of long-term hospitalization. To avoid secondary disorders, it is necessary to shorten a hospital time by early treatment and rehabilitation.
3. Disabilities are relatively distinct but also interactive. It is necessary to break the vicious circle of interactive relations and use team approach.
4. Disabilities are influenced by environments, especially the human environment. It is effective to promote social action like environmental modifications
5. There is an interaction between disability and personal factors. The rehabilitation model should value individual's talent, ability and capability.
6. Disabilities are variable. It is necessary to allow for both recovery and recurrence.

   In addition to these:
7. The labelling of a mental disease contributes to social prejudice and discrimination. It is necessary to provide accurate information about disease and disability

These characteristics and problems of mental disability are seen as factors that make treatment and rehabilitation of people with mental disability difficult (Utena, 1985). Discriminatory labelling is peculiar to mental illness. In the view of many observers, prejudice against those with mental illness lies at the root of resistance to accepting persons with mentally illness in the community (Lin, 1991).

According to the medical model, "disability" is a problem directly caused by a disease that requires medical treatment and care by professionals. According to the rehabilitation model, however, "disability" is an interaction between personal health conditions and the social environment to promote the quality of individual lives. Therefore, the management of mental disability requires comprehensive biopsychosocial approaches. The health care services should move away from a focus on disease and disability to a focus on activities in daily living and social participation of individuals.

IMMD: A Practical Rehabilitation Model of Mental Disability

Outline of the IMMD

The IMMD was proposed as a practical rehabilitation model (Yamane, 2000; 2001) to deal above-mentioned characteristics to mental disabilities and heath care. The overall schema of the IMMD is depicted in Fig. 3. Table 1 contains the definitions of terms for the IMMD. The IMMD is a three-dimensional overall rehabilitation model of mental and physical functions, activities in daily living and social participation and the two contextual parameters of personal and environmental factors.

The IMMD is a practical rehabilitation model designed for team conferencing among professionals and interviews, and consultations with clients. It visualizes the characteristics and

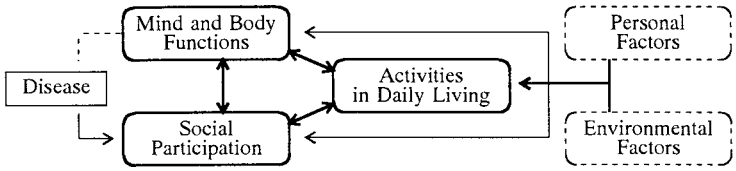

Fig. 3. An Interactional Model of Mental Disability (IMMD) based on ICIDH

Table 1. Definitions of terms

Common terms in a model	
Mind and body functions	The physiological or psychological functions of the body
Activities in daily living	The performance by an individual in daily living
Social participation	An individual's involvement in community life
Personal factors	An individual's ability and capability to facilitate social participation
Environmental factors	The natural, human-made and socio-cultural environment.
Terms used for the team conferencing work sheet and self-assessment sheet	
Housing and finances	Individual's financial status and housing
Summary of treatment	Summary of all medical treatments (e.g., psychotherapy, medicine)
Summary of assessment	Summary of physiological and psychological functions, activities in daily living, social participation and so on
Family information	Family history, structure, membership, and relations
Focal problem	The most important and achievable target
Rehabilitation goal	Goal of rehabilitation team for medical treatment and support
Long-term goal	Goal to be achieved within six months (one year maximum)
Short-term goal	Goal to be achieved within one month (three months maximum)
Support Plan	Rehabilitation program, treatment period, method, etc.
Difficulties	The most difficult problems for client
Present hopes	Expectations of client: return to school, employment, making friends, etc.
Your goals	Goals of client

problems of mental disabilities, especially the distinct and the interactive nature of the three dimensions of disability. It makes it clear that two contextual factors interact with all three dimensions of classifications. The model also shows that disability is not a consequence of disease, and that the labelling of a disease contributes to social prejudice and discrimination. For example, the prejudice against mental illness has made the provision of housing in the community extremely difficult.

The following explanations are meant to correct the definitions of the ICIDH-2 Beta-1 and Beta-2 Drafts. The term *Mind and Body Functions* indicates the body structure or physiological and psychological functions. The negative aspect of *Mind and Body Functions*, which was formerly *impairment*, indicates a loss or abnormality of body structure or physiological and psychological function at the level of body (biological organs and functions, including the brain). What is generally called *symptom* is synonymous with impairment. In addition, secondary dysfunctions, abnormalities, or both (e.g., side effects, decline in physical strength due to long-term hospitalization) should be included.

The term *Activities in Daily Living*, or functions at the personal level, is used in the broadest sense to capture every physical and mental activity that a person engages in at various levels of his/her daily living, such as grasping, walking, seeing, communicating, remembering, interacting with others and so on. The negative aspect of *Activities in Daily Living*, formerly *disability*, is represented by *Activity Limitations*, which are caused by disability and handicaps. Difficulties in any domain of an individual's activities in daily living, and also lack of experience in life because of the disease should be included. Lack of experience includes: difficulties in daily social skills, family roles, occupational performance, and in utilizing social resources, interpersonal skills, or both.

The term *Social Participation*, one's involvement in society, means the interaction between impairments and limitations in daily living activities and contextual factors (environmental factors, personal factors). The negative aspect of *Social Participation*, formerly *handicap*, is represented by *Participation Restrictions*, which are caused by impairments, disabilities and negative associations of the disease, serious deviant behavior of the person in the community arising from the interaction of impairments and environmental factors, or both. *Participation Restrictions* includes income limitations, restrictions on fundamental human rights and difficulties in seeking employment and public housing.

In the IMMD, the term *Disability* is used as a comprehensive term for all the negative dimensions of *Mind and Body Functions, Activities in Daily Living* and *Social Participation*.

Environmental Factors represent external influences on a person's functions and are composed of components of the natural environment (e.g., weather), the human-made environment (e.g., community facilities, transportation), socio-cultural environment (e.g., rules and regulations, laws, attitudes, customs, institutions) and human environment (e.g., other individuals). *Personal Factors* represent internally influences on functions and comprise individual features, such as age, educational background, life experience, aptitudes, character, preferences, special abilities. In other words, the positive side of *Personal Factors* can be described as individual abilities including capabilities. These two contextual factors can be either participatory facilitators and inhibitors, and interact with one another.

Conferencing work sheet and self-assessment sheet

Conferencing work sheet (Fig. 4) and *Self-assessment sheet* (Fig. 5) have been designed for practical application of the IMMD. Both sheets have almost the same design to compare the recognition of the client with the assessment of the professionals. In the self-assessment sheet, some terms are changed to understand what the client is expecting and the problem perplexed him or her (e.g., difficulty, present hopes, your goal). In the top portion, there is a chronological table, where the events in the individual's life (e.g., growth history, educational background, job career, present illness, hospitalization, and medical treatment) are entered. The chronological table helps the client to recollect his/her own life and experiences.

The conferencing work sheet is filled in by professionals and is used for team conferences among professionals. That helps to consider how and who to support the client in the professional team approach. The self-assessment sheet is filled in by clients. That shows how clients are recognizing themselves, relationships to environmental factors, and what the client is expecting. The self-assessment sheet is used to have a common goal with the client.

Practical Application of the Immd

Subjects and methods

During a three-year period, we used the IMMD, conferencing work sheets and self-assessment sheets in three day-care facilities, two mental hospitals, one vocational aid center and one cooperative work place. We also surveyed professionals and patients about the utility of the IMMD.

Appendix 1 shows the outline of the

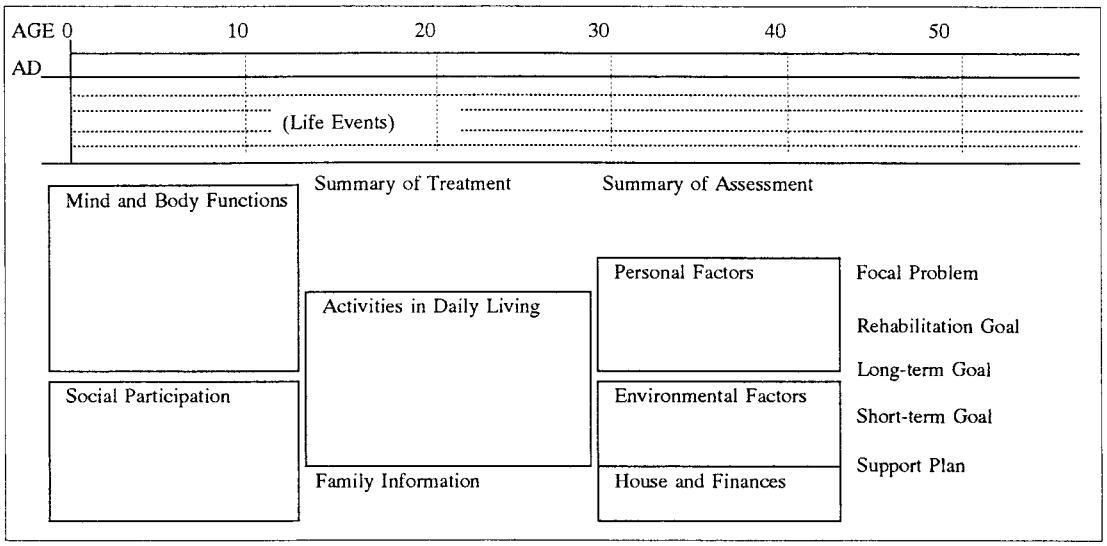

Fig. 4. Outline of team conferencing work sheet

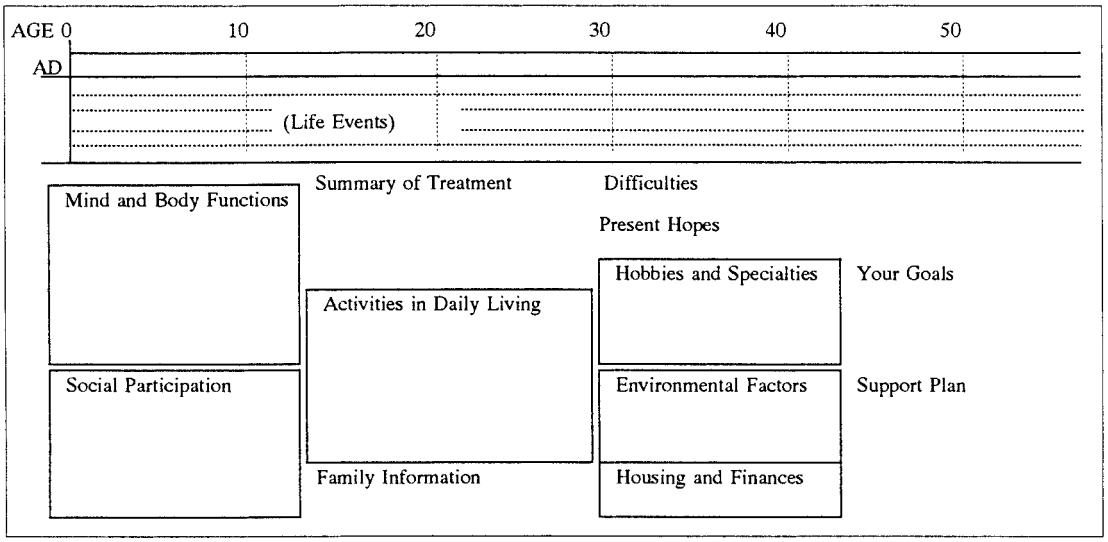

Fig. 5. Outline of self-assessment sheet

questionnaire. The purpose of question 1 was to determine whether the IMMD is useful for understanding a client's mind and body functions and disabilities. Question 1 was rated on a five-point scale, and the Wilcoxon signed-ranks test was used to compare differences in the level of understanding of the client's mind and body functions and disabilities before and after using the IMMD. Other questions were answered with yes or no, and the Chi-square test was applied to the

answers.

Results

We received answers to the questionnaire from 43 professionals and 64 patients (30 inpatients and 34 outpatients). Table 2 shows the comparisons of the levels of understanding before and after using the IMMD and the results of the Wilcoxon signed-ranks test, showing significant differences for the professionals group ($p<0.01$) and the outpatients group ($p<0.01$).

Table 3 shows the results of the questionnaire for professionals and analysis using the Chi-square test. The results showed significant differences for the team approach ($p<0.05$), for consensus among professionals ($p<0.01$), and for sharing goals with the client ($p<0.01$). However, no significant effect was seen in terms of shortening conferencing time.

Table 4 shows the results of the questionnaire for patients and analysis using the Chi-square test. The Chi-square test showed significant effects of consultation with professionals for both the inpatient and outpatient groups ($p<0.01$). In terms of setting their own goals, however, no significant effects were found on either the inpatient or outpatient group. Answers to the usefulness of

Table 2. Comparisons of levels of understanding before and after using the IMMD

	Professionals (N=43)	Inpatients (N=30)	Outpatients (N=34)
Level of understanding before using the IMMD (Mean ± SD)	2.326 ± 0.808	1.700 ± 0.702	2.000 ± 0.696
Level of understanding after using the IMMD (Mean ± SD)	4.070 ± 0.704	2.167 ± 0.913	3.529 ± 1.051
Corrected p-value	1.78707E-08	0.00815	1.02854E-06
Wilcoxon signed-ranks	**	NS	**

*, $p<0.05$; **, $p<0.01$; NS, not significant.

Table 3. Results of questionnaire for professionals (N=43)

	Yes	No	Chi-square
Shortening of conferencing time	26	17	1.8837 NS
Usefulness for team approach	28	15	3.9302*
Usefulness for establishing consensus among professionals	30	13	6.7209**
Usefulness for having a common goal with a client (patient)	33	10	12.3023**

*, $p<0.05$; **, $p<0.01$; NS, not significant.

Table 4. Results of questionnaire for patients

	Inpatients (N=30)			Outpatients (N=34)		
	Yes	No	Chi-square	Yes	No	Chi-square
Usefulness for setting own goal	10	20	(3.3333) NS	21	13	1.8824 NS
Usefulness for understanding services provided	19	11	2.1333 NS	23	11	4.2353*
Usefulness for consultation with professionals	21	9	4.8000**	25	9	7.5294**

*, $p<0.05$; **, $p<0.01$; NS, not significant.

understanding the provided services were significantly more positive only in outpatient group ($p<0.05$).

Discussion

From our experience with the IMMD and the results of the questionnaire for professionals and patients, we found that the practical usefulness of the concept of IMMD to build a concrete base for team approach. The significant improvement of professionals' reported level of clients' understanding suggested the unique contribution of the IMMD to facilitate an overall and organized perspective of the client's mind and body functions and disabilities. We assume that an overall shared understanding of a client became a factor to identify roles in team approach, to reach a consensus, and to establish shared goals with a client. Although the utilization of the conference sheets did not shorten a conferencing time by itself, it was expected that team members needed to become accustomed to using the work sheets as a shared communication frame.

The results of patients' survey evoked some questions to be studied in a future. Both inpatient and outpatient groups answered significantly positive for the usefulness of the IMMD work sheets for consultation with professionals, and not significantly negative nor positive for the usefulness for setting their own goals. This suggests that the IMMD may help clients to understand the different roles of professionals in terms of their practical needs but may not help to organize their own goals if professional help is not being provided based on their self-reported IMMD work sheet. This points out the importance of using the IMMD not only as an information-gathering tool but also as a communication process with a client. The result of outpatients showing positive usefulness of self-reported better understanding of their own conditions encouraged the future utilization of the IMMD to share a common goal with a client.

The non-significant changes of self-reported understanding level of self conditions among inpatients and the tendency of more negative answers to usefulness for setting their own goals should be studied more thoroughly in relation to therapeutic structures and milieu of long-term hospitalization.

The IMMD expresses the characteristics specific to mental disability and is a functional and user-friendly model. The IMMD and work sheets apply the concept of the ICIDH and ICIDH-2 to clinical in the psychiatric domain. Consequently, using the IMMD and work sheets may change the paradigm from seeing a person with mental disability as being a subject for medical treatment, to a person whom we live together with in the community.

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References

Anzai, S., Anzai, M., Abe, S. Majima, K., Iwabuchi, M., Kanai, K., & Imai, N. (1984). The Problem of disease and lesion in the mental illness. *Kanagawa Prefecture Journal of Psychiatry*, **34**, 89–96 (in Japanese).

Arizuka, R. (1995). Social skills for living in a community. *Japanese Psychiatric Rehabilitation Report*, **2**, 94–101 (in Japanese).

Asano, H. (1999). On Impairments, Disabilities and Handicaps. *Psychiatry*, **16**, 80–88 (in Japanese).

Fougeyrollas, P. (1993). The handicap creation process classification proposal and the revision of ICIDH. *ICIDH International Network*, 6 (based on material from the International Health & Welfare Seminar. Japanese Association of Psychiatric Rehabilitation. 1997).

Fougeyrollas, P. (1994). Applications of the concept of handicap of ICIDH and its nomenclature. *ICIDH International Network*, **7**, 24–48.

Hachiya, H. (1981). Personal opinions on impairments, disabilities and handicaps. *Japanese Journal of Clinical Psychiatry*, **10**, 1653–1661 (in Japanese).

Japanese Association of Psychiatric Rehabilitation (JAPR) (1996). Impairments, disabilities and handicaps in mental health and welfare. *Japanese Psychiatric Rehabilitation Report*, **3**, 111–170 (in

Japanese).

Japanese Association of Psychiatric Rehabilitation (1997). Personal opinions on impairments, disabilities and handicaps (symposium). *Jpn. J. of Psychiatric Rehabilitation*, **1**, 82–113 (in Japanese).

Japan ICIDH-2 Field Trials Planning Committee (1998). Report of field trials on ICIDH-2 Beta-1 Draft (in Japanese).

Lin, T. (1991). The changing role of mental hospitals in Asian cultures. In T. Lin, K. Asai, & T. Takahashi (Eds.), *Mental hospital as a base for community mental health in Asian cultures*. Tokyo, Japan: Keimei Publishing Co., pp.133–141.

Martini, R., Polatajko, H. J., Wilcox, A. (1995). ICIDH-PRA: potential model for occupational therapy. *Occupational Therapy Int.* **2**, 1–21.

Nakazawa, M. (1996). Structure of disablements in living. *Jpn. Psychiatric Rehabilitation Report*, **3**, 139–153 (in Japanese).

Nakazawa, M. (1997). Chairman's impression of the symposium (Personal opinions on impairments, disabilities and handicaps). *Jpn. J. of Psychiatric Rehabilitation*, **1**, 82–84.

Ohashi, H. (1997). Image model for clinical application to ICIDH. *Jpn. J. of Psychiatric Rehabilitation*, **1**, 18–23.

Polatajko, H. J. (1992). Muriel Driver Lecture. Naming and framing occupational therapy: A lecture dedicated to the life of Nancy B. *Canadian Journal of Occupational Therapy*, **59**, 189–200.

Sato, H. (1996). Principal points of the revision work of ICIDH. *Jpn. Psychiatric Rehabilitation Report*, **3**, 125–137 (in Japanese).

Tomioka, N. (1999). Mental disablement. In Japanese Association of Occupational Therapy (Ed.), *A compendium of occupational science*, Vol.5. Tokyo, Japan: Kyodo Isho Shuppannsha Co., Ltd. (in Japanese).

Ueda, S. (1980). Position of rehabilitation medicine. *Journal of Clinical and Experimental Medicine*, **116**, 241 (in Japanese).

Ueda, S. (1996). Concept and structure of disablement. *Jpn. Psychiatric Rehabilitation Report*, **3**, 114–124 (in Japanese).

Ueda, S., & Okawa, Y. (1998). Clinical significance of impairments, disabilities and handicaps in rehabilitation medicine. *Japan. J. for Problems of the Handicapped*, **26**, 4–16 (in Japanese).

Utena, H. (1985). Schizophrenia and concept of disablements. *Jpn. J. Clinical Psychiatry*, **14**, 737–742.

WHO (1980). *The International Classification of Impairments, Disabilities and Handicaps (ICIDH)*. Geneva: WHO.

WHO (1995). Report for the annual meeting on the revision of the international classification of impairments, disabilities and handicaps (ICIDH). Paris: WHO.

WHO (1997). *ICIDH-2 international classification of impairments, activities, and participation: A manual of dimensions of disablement and functioning beta-1 draft for field trials*. Geneva: WHO.

WHO (1999). *ICIDH-2: international classification of function and disability beta-2 draft full version*. Geneva: WHO.

Yamane, H. (1996). Models of occupational therapy in connection with the structure of psychiatric disorders. *Journal of Japanese Association of Occupational Therapy*, **15**, 434–443 (in Japanese).

Yamane, H. (1997). Some structural models of psychiatric disease and disablement. *Japanese Journal of Hospital and Community Psychiatry*, **39**, 360–365 (in Japanese).

Yamane, H. (1999). The revision of ICIDH and occupational therapy. *Journal of Japanese Association of Occupational Therapy*, **18**, 4–9 (in Japanese).

Yamane, H. (2000). New circular model with a view towards normalization. *Journal of Japanese Association of Occupational Therapists*, **19 (suppl.)**, 123 (in Japanese).

Yamane, H. (2001). The concept and practical use of an interactional model of mental disability (IMMD). *Journal of Japanese Association of Occupational Therapists*, **20**, 145–153 (in Japanese).

Appendix 1. Outline of questionnaire

For professionals		
1. Do you have sufficient understanding of the client's mind and body functions and disabilities?		
Level of understanding before using the IMMD	Insufficient 1-2-3-4-5 Sufficient	
Level of understanding after using the IMMD	Insufficient 1-2-3-4-5 Sufficient	
2. Has conferencing time been shortened?	Yes	No
3. Is the IMMD useful for the team approach?	Yes	No
4. Is the IMMD useful for establishing consensus among professionals?	Yes	No
5. Is the IMMD useful for establishing a shared goal with a client?	Yes	No
For patients		
1. Do you have sufficient understanding of your own mind and body conditions and disabilities?		
Level of understanding before using the IMMD	Insufficient 1-2-3-4-5 Sufficient	
Level of understanding after using the IMMD	Insufficient 1-2-3-4-5 Sufficient	
2. Is the IMMD useful for setting your goal?	Yes	No
3. Is the IMMD useful for understanding the services provided for you?	Yes	No
4. Is the IMMD useful for consultations with professionals?	Yes	No

Rehabilitation Challenges of Health Care for the Elderly in Japan

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Abstract: Japan has become an ultra-aging society as people over 65 years of age increase to 17% of the population. The Law of Public Care Insurance for the Elderly system commenced in April of the year 2000. As a result, the payment system for elderly care services was transferred from taxes to national health insurance. Community-based rehabilitation, which includes occupational therapy, will make even greater contributions to the ultra-aging society in Japan.

Key words: ultra-aging society, Law of Public Care Insurance for the Elderly, community-based rehabilitation

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Ultra-Aging Society and Changing Values of Japanese Society Toward Aging and the Aged

From the view point of health, the most important characteristic of Japan is to recognize that the nation is an ultra-aging society where the percent of people over 65 years of age has increased to more than 17.2% of the populations. The current Japanese average life span is 77.2 years for males and 84 years for females. In 1984, Japan had the highest average life span in the world. An equally significant shift is that the number of physically feeble elderly, senile dementia and bed bound elderly cases are projected to increase to 5.3 million in 2025. This would amount to 4% of the total Japanese population if we do not take steps to alleviate this situation. In particular the number of the bed-bound will markedly increase for those over 85 years old (Hattori, 2000). This signifies that the aging problem of Japan is primarily a problem centered on Japanese over 75 years old which worsens with greater longevity. This remarkable trend of ultra-aging has forced the Japanese to change their attitudes toward aging and the elderly. Specific trends have been:

1. A shift to more westernized thinking where every person including the elderly and disabled should be treated as self-reliant individuals versus the traditional Japanese Jukyo religious-influenced values where persons retired from active life are treated with warmth, respected and protected by the younger generation.
2. A shift to a more active attitude that individuals

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should maintain their own health with occasional support from medical doctors and other professionals versus more passive attitudes where the family members, medical doctors and other professionals without any informed consent take care of the physical and mental needs of the elderly.

These changing views and attitudes have been described in the publication, National Strategy "Healthy Japan 21st Century". The policies now in effect will be detailed later in this paper.

Health Care System and Description of Rehabilitation for the Elderly in Japan

The following four areas will be discussed:

1. Health insurance system related to rehabilitation and occupational therapy
2. Medical insurance system related to rehabilitation and occupational therapy for the elderly
3. Public care insurance system for the elderly related to rehabilitation and occupational therapy
4. Social service system supported by welfare taxes related to rehabilitation and occupational therapy

Total expenses of both pension and medical services have rapidly increased while social welfare services have stayed at low stable levels for the past thirty years. A 5: 4: 1 ratio of pension to medical to social welfare currently exists (Hattori, 2000). Greater medical expenses are directly attributed to increased size of the elderly population. The Japanese Government has enacted policies to reduce the total cost of medical services by appropriating gradual portions to social services as the years progress. The Ministry of Health and Labor announced that the ratio between pension, medical and social services should change from the present 5: 4: 1 to 5: 3: 2 in the future. Medical costs have markedly increased over the past years as Japanese have aged. In 1998 a slight decrease of the total medical costs was seen for the first time. The Japanese Government has strongly pushed Japanese people to maintain their health and prevent various diseases caused by unhealthy life styles. This policy is called "Healthy Japan toward 21st century".

In order to coordinate health and care problems of the elderly, Japanese Government passed the "Law of public care insurance for the elderly" in April, 2000. Citizens over 65 years who have care service needs through public care insurance are required to apply for benefits in their own local districts. Districts, then, send investigators to their homes to assess physical, psychological abilities and other basic needs. When this data is collected and analyzed by the government computer, the applicant is temporarily assigned one of six levels of care status which signifies heavy to light levels of public care. Later, Judgment Committees are organized by the district composed of medical, health and social authorities to decide the applicant's final care level. The next step involves case managers who prepare care plans for each individual applicant before actual services begin. The percent of expense burden assumed by national health insurance users is about 10%. Fifteen percent is covered by health care insurance system and the balance is covered by public tax revenues. Eligibility depends on two factors: age 65 years or older and those who fall in the 40 to 64 years age range. Users must also pay a specified amount of insurance to their own district. The rate varies according to each district. The public care services coverage includes home visiting by nursing, rehabilitation for the elderly, day care service, technical aids, house adaptation and physical and mental care services are provided under the Public care insurance. Despite the umbrella of various legislated health services, there is a lack of both quality and quantity of hospitalized medical rehabilitation and community-based rehabilitation services in practice.

Expected Developments in Community-Based Rehabilitation and Occupational Therapy

In the year 2000,Tokyo Metropolitan Government has published a proposal report entitled "Toward the structure of support systems for independent living of the disabled in the 21st

century." This report emphasized that both the elderly and the disabled desire to live in their own communities, to use various care and rehabilitative services tailored to individualized needs and carried out by care management providers. Because community-based rehabilitation and occupational therapy place their primary rehabilitative thrust on self- independence within the home and community, there is great urgency for substantial development of these health professions in Japan for the upcoming decades.

Kin-san, the elder of the oldest and most famous twin sisters in Japan who died at a ripe age of 107 and her younger sister Gin-san who passed at 108 are endearing symbols and ideal models for the Japanese. They lived long productive lives who graced us with their beautiful smiles. This was achieved in great part, because Kin-san and Gin-san received sustained support from family members, community volunteers and rehabilitation services until the very end of their lives. Each one of us hopes for the same.

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References

Hattori, M. (2000). Structure of public care insurance system for the elderly. Tokyo: Japan Jitsugyo Pub., 12–23.

Aging Through Occupation

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Abstract: The quality of life of the older person is formed by all life experience. The health of a person throughout the growth process from birth to death is greatly influenced by the daily occupation of the individual. Occupational development may be delayed, hindered, thwarted or changed by debilitating congenital or acquired illness or injury at any age and may be temporary or permanent. The individual depends on the knowledge and experience of past years to help with recuperation; future developmental stages will be positively or adversly affected by disability. Retirement from years of work at a job may provide freedom to explore new interests and occupations; or isolation from routine and community and poor self-motivation for activity, often resulting in declining health and quality of life, lacking daily achievement and satisfaction. In the United States increasing programs are available for rehabilitation of the older person both within and outside of the medical environment. With shorter hospital stays, emphasis is on home care, assistive living, and long term care with a homelike atmosphere. The rehabilitation, home care, and long term care teams focus on engaging the older person in new occupations to provide health and quality in the remaining years. With longer life, increased attention to quality is essential in the health care environment, be it in an institutional or community or home setting. Occupational therapists play a key role in educating staff and families in the importance of optimum self-care and self-directed daily activity to enable elders to engage in a life of achievement and satisfaction within individual limits and potentials.

Key words: occupation, quality of life, control, independence, achievement, satisfaction, aging through occupation

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Introduction

The purpose of this paper is to emphasize the importance of occupation or involvement in self directed independent activity in all aspects of daily life within the individual's capabilities and

appropriate to his or her physical, social, environmental, and cultural context throughout the developmental continuum from birth to death. Occupation is the life force of being and becoming. Health care options begin with adequate care of oneself during the developmental periods to enable optimum daily health in the later years of life. Quality in one's life is affected by control in decision making and activity. Injury, illness, and retirement can be enhanced or hindered by the quality and appropriateness of health care programs and practices.

The extent to which satisfactions in employment are carried over to retirement affect attitudes toward employment. Some, reluctant to retire to a daily pattern without the structure of work at a job, a consistent paycheck, and the desire to continue work may continue to pursue work such as teaching, doctoring, or consulting in business to name just a few. Other older adults may find that retirement is a welcome change from structured occupation and provides freedom to enable them to pursue long-awaited activities of choice such as recreational or leisure interests, reading, the arts, socializing, tending personal gardens, taking college courses, working on home improvements, or spending more time with children and grandchildren.

The ideal is to be able to do these things, perhaps with the aid of glasses, hearing aids, canes, crutches, walkers, wheelchairs or other assistive devices. Successful adaptation to changes enables the retiree to maintain and to gain a sense of usefulness to himself and to society and promotes continued and optimum health.

There is increased longevity for persons with a spinal cord injury and increased survival from brain injury. Patients are helped by early intervention of diagnosis and treatment, sophistocated rehabilitation devices, new psychiatric medications to control problem behavior, exercise programs and adaptive equipment to aid in active participation in productive activity in the home, the workplace, or the community. More comfortable and useful prosthetic devices are enhanced by new socket designs, and improvements in wound healing techniques are available for persons with diabetes. These improvements in medical, health, and rehabilitative care are necessary to meet the needs in the rise in life expectancy in persons over 65 years, with increasing numbers living functional and independent lives in their eighties and nineties.

Meaning of Occupation to Life

The quality of life of the older person is formed by all life experience. Major areas include:
personal self-care,
individual and social play,
school, work in the family and in the home,
work in paid employment,
retirement from formal work,
adaptation to retirement, rehabilitation, assisted living, and long term care.

Throughout the growth process personal health is greatly influenced by the daily occupation of the individual. Involvement or occupation in physical and social independence through self-directed activities found in work, play, leisure, and rest helps to develop and integrate mental, physical, and functional skills needed to pursue interests in education, recreation, manual ability, career planning and training, and employment. Satisfying development in these areas is enhanced by healthy family and community participation. Nelson (1992) states that a lack of meaning leads to lack of purpose.

Control in Our Lives

We all want to be in control of our lives:
a lack of meaning leads to lack of purpose,
there may be a tendency of the older person to slow down,
changes may cause disuse of abilities,
loss of control of self and decisions may occur;
health care may result in
impingement on individual autonomy.

Occupational therapists facilitate the occupational potential inherent in an individual through assisting a person to maximize successful activity function from infancy to adulthood, regardless of ability or disability. Occupational development may be delayed, hindered, thwarted

or changed by debilitating congenital or acquired illness or injury at any age. Disability may be temporary or permanent.

Developmental Life Stages

Activity experiences develop and vary significantly through the growth stages of childhood, adolescence, through adulthood. At the age of occurence of debilitating illness or injury, the individual is dependent on the resources developed to that point of development (Spencer, 1998). From then on, the individual must integrate the experience of the trauma and develop maximum independence in functional physical, sensory, cognitive, and psychosocial ability. The stage of development and the age of the person can be both advantageous and disadvantageous to necessary adjustments.

Ability to Disability to Ability

Functional restoration following debilitating trauma or disease requires transition from the pre-morbid ability status, through a disability stage, to a new stage of ability (Spencer, 1988) Timely and effective rehabilitation is essential as the older patient is vulnerable to the development of further disease or disability processes. The need to improve the health of the elderly impacts not only prolonging independent self-care but also the financial consequences of the nation to provide adequate and appropriate health care services. Development of many new community health programs for the elderly evidence the move toward optimum use of the body and the mind to avoid falling into a pattern of unnecessary physical, psychological, functional and social disuse caused by a sedentary non-productive lifestyle, particularly after retirement. In her introduction to her book, *A Natural History of the Senses*, Diane Ackerman (1990) warns that "there is no way in which to understand the world without first detecting it through the radar-net of our senses". Initial experiences of smell, touch, taste, hearing and vision in infancy enhance and condition our movements in response to a multisensory and functionally demanding world.

During the first contact with a patient following trauma or disease, the the therapist must learn the pre-morbid or previous lifestyle experience of the individual including likes and dislikes, abilities and deficits, accomplishments and failures, and challenges. Optimum occupational therapy intervention enables the patient to develop a future lifestyle of ability; *from disability to ability*. The fortunate healthy older adult, with or without a significant residual disability may maintain the ability to live safely alone at home or with spouse or family until the age of 70 or 80 or 90. Indeed, many adults may start new occupations enabling them to work at voluntary or remunerative jobs during these decades.

Retirement: A Major Change in Occupation

Some effects of retirement on health are:
loss of routine daily structure,
change from direction by others to self-direction,
change in occupational areas and motivation,
refocusing of work orientation into productive and satisfying self-directed activity,
adaptation to change,
deterioration of physical, mental and social (work) skills, and
diminishing employment opportunity (choice).

Community services: prevention

In the United States, increasing attention is given to the health needs of the older adult. "Wellness" programs in the community are directed toward providing structured exercise, activity, social, and educational programs to prevent illness and to promote continued health. "A group for whom there is little social and economic demand will necessarily lose self-esteem." (Butler, 1983).

Positive community involvement combats dependency from conditions such as stroke, diabetes, multiple sclerosis, post-polio, amputations, cancer, psychological disorders, social isolation, physical dysfunction, fractures, and hearing or visual deficits. Hospitals,

rehabilitation centers, outpatient programs, nursing homes and other health facilities assist in patient and family education by providing written information, books, video tapes, lectures, and consultation to individuals and groups on prevention of disease and injury. People need to be kept out of hospitals and nursing homes and in their own homes as long as possible.

To meet the needs of the increasing number of older adults, prevention programs in hospital and community must be augmented by resources provided by federal and state funding, private insurance programs, community agencies, and local volunteers. For example, Medicare is a Federal program of the Department of Human Services designed to fund hospital and rehabilitative care of the person 65 years and older. This may be in a hospital inpatient or outpatient program, or a home care program: many hospitals have all three as well as an Education Department and a Retirement Community within their health care services. Adults receive Social Security from the government following retirement from work at 62–65 years of age. A new law is in effect to encourage older adults to continue working past the age of 65 with full Social Security benefits, as the worker contributes to Social Security while working.

Hospital services

Advances in emergency medical care have served to increase the number of people with long term disabilities. Use of comprehensive rehabilitation teams, improved and expanded rehabilitative approaches and techniques, research in assistive technology, and public awareness regarding universal accessibility have provided resources to assist the elderly in achieving and maintaining maximum independence. Psychosocial counselling aids the patient and family to plan for active participation in productive activity toward positive adjustment to disability and changes in daily living in the home, the workplace, and the community. An increasing number of elders are living functional and independent lives over 65 and into their 80s and 90s. Hospital stays and rehabilitation services are time-limited in the United States, usually according to diagnosis, and expected length of treatment time based on medical need and reimbursement restrictions. Many hospitals are providing non-traditional outpatient and community services and developing free-standing retirement community complexes which provide home health, assisted living, long term care, and health education programs.

Home health or health at home

There is a general surge to enable older adults to return home following temporary stay at hospital, assisted living, or nursing home to the familiar domain of family and memories to insure continuity of safety and quality of life.

It has been found that elders:
find comfort at home,
recover from acute illness more quickly,
receive support of family and friends and,
find ease in adjusting to the difficulties of permanent disability, long-term health problems, and terminal disease.

With shorter hospital stays, independent functions are emphasized so that patients can go home with needed assistive devices for self-care, plans for home modifications for safety and accessibility, and maximum functional independence.

Assisted living

Assisted Living apartments allow elders to live in an environment where they can live alone but benefit from some services such as meals, nurse on call, and an aide available to assist with daily needs. Assisted Living programs may also be attached to or within a nursing home. With a positive prognosis for improved function and individual and staff efforts toward independence, the resident may be able to go home rather than have institutional long term care.

Nursing homes and long term care

Services in long-term care facilities are available to the elder as funded by the Federal Medicare program and the State Medicaid program or welfare program. Programs include Home Care, Congregate Housing, Adult Day Services, Assisted Living and Homemaker

programs. Federal and State benefits may be augmented or substituted by private insurance. The nursing home or long term care facility may be a temporary or long stay, depending on the health status, medical needs, functional ability of the patient, financial resources, and options for staying staying at home or returning home following institutional medical care. Residents may have physical, sensory, psychological or cognitive deficits affecting functional independence, and/or intellectual functions such as memory, judgment, orientation, problem solving. Residents are encouraged to perform self-care activities with maximum independence, to participate in occupations such as constructive activity and socializing, and to participate in individual and group social and manual activity programs. The facility may provide entertainment as well as special events, visits, and outings. Nelson (1992) notes that "individual meaning and purposeful occupation frequently creates conflicts in the orderly and medically oriented institutions" where the "individual's inherent need for autonomy and a sense of control over environment" may clash with the values of the institution associated with promoting docility and passivity in residents." These words may stimulate thoughts of the too often institutional priorities given to scheduled times of services needed by residents, stereotyped group and individual programs expected to please or enhance the involvement of all residents in activity. Assumed inability of the resident on the part of caretakers may impose further mental restrictions. Lack of appropriate respect and courtesy for the individuality of the resident with regard to preferred times, for example, to get up, to get dressed, to eat, to engage in activity, to socialize or to rest prevents the attitude of consulting with the resident to work out a meaningful therapeutic and healthy program to truly enhance the daily living quality for the resident as seen by both the caretaker and the resident, even though possibly different.

Healthy Options

Many regional and local community services are available for the elderly. Community centers provide a variety of activities such as exercise and activity programs, meals, discussion groups, reading groups, and group travel to museums and concerts. Transportation needs are provided by community services, and meals are taken to the homes of elders who have disabilities and are not able to get out to shop; homemakers provide laundry, cleaning, and cooking services in the home to enable an older adult or "senior citizen" to stay at home where it is familiar and comfortable. Safety is enhanced by visits from family and friends to one who is alone. To encourage the seniors (elders) to participate in cultural events, discounts are often available in theatres, stores, insurances, fuel and other needed commodities. The American Association of Retired Persons (AARP) provides various types of insurance policies reduced rates on prescriptions, car rentals and hotel rates. This organization publishes a magazine and a news bulletin on changes in health care through government resources and provides a lobby group in the national government for improvements in health policies for the older adult. In community centers, free assistance is provided for legal and tax needs.

Participation in community programs often provides the life-giving social and physical activity with others that gives joy and satisfaction in one's life. The following list names some programs available in the USA:

Meals on wheels/Meals for Me (taken to the home daily),
Community Companion (voluntary or paid),
Support groups: ie. post-polio, spinal cord injury, multiple sclerosis,
AA/Alanon, Arthritis (no cost),
Social groups: ie. book discussions, trips, concerts, museums (usually free
Membership, some participation costs),
Elderhostel or Senior College education courses (50 or over, low cost),
Seniors Day: ie. shopping the mall, activity programs at hospitals or schools, voluntering at health care facilities (no cost),
Seniors Sports: ie country club, competitive, community center, and more...and more...and more. (usually discount or low cost).

Wanting control over our lives coincides with the requirement in long term care facilities (in the USA) that organized activity programs must be offered but can be attended voluntarily. Unfortunately this resident choice may thwart the therapeutic advantages of the program OR the resident may be wheeled into a program without being given a choice. Gradually the interior and exterior design and architecture in long term care facilities provide a more homelike atmosphere, more color, needed functions within the environment such as laundry machines, kitchens, and gardens for residents to use. New meanings derive from new activities, sensations, and experiences over time. These occur with staff recognition of individual resident needs and lifestyle preferences. Priorities focus on the resident, encouraging choices to increase the sense of individual control in getting to know and use the new homelike environment.

Initiation of activity on the part of the individual is motivated or thwarted by past personal developmental effects of stimulation to the sensorimotor, cognitive, and social systems. Participation in group activity relates to the personal perceived need, and an inherent confidence in a pleasurable outcome of the involvement. Acknowledgment of the importance of the "sensory map" of the individual and its role in his/her day to day living is crucial to encourage the elder to engage in life-giving occupations in the long term environment or assisted living...as well as the hospital or home environment.

An activity which was presented effectively to residents in a nursing home was described by Kenneth Koch (1977) in his eloquent and heartwarming book entitled *I Never Told Anybody*. These words he suggested to his students in the nursing home to use in starting a poem. He developed a stimulating program of a weekly class in writing poetry. It was found that through the process of looking, listening, touching, smelling, and hearing that the residents gradually became interested in expressing their own ideas in poetry and listening to those of other residents. They found new enjoyment in the effort to put together lines of thought in single poem or in collaboration with others. When the instructor suggested topics such as: "talk to the moon, the seasons...think of a flower...think of a memory...think of a joyous day or event…" (Koch) he found his students expressing ideas relating to where they found color, how they felt about nature, about a memory of family or an event. The published book reveals the possibilities of finding joy in an art form which perhaps had previously been thought unreachable by the resident. The same effort can be used with art and other creative media.

Another common activity in an active nursing home is dancing, often encouraged by a visiting group of dancers to the facility. Music is a common way of stimulating one to want to move; with encouragement and assistance, it can be done with the help of a brace, a crutch, a walker, or a wheelchair. Where there is life there is a possibility of awareness, stimulated by the functions of sensation, movement, and accomplishment through occupation in life-giving activity. The student, the patient, the client or the resident can be encouraged to find the joy and satisfaction of youth in daily living when there is the opportunity for choice, new learning, and control of the daily satisfactions within the limits and the potentials of the individual's capacity to participate.

Main Ideas

- **Quality of life** of the older person is formed by all life experience.
- The **health** of a person is greatly influenced by the daily occupation of the individual.
- **Occupational performance** is the voluntary doing of the individual in the physical and cultural environmental context that elicits individual function.
- **Independence** in self-directed activity enhances satisfying development.
- A lack of **meaning** leads to a lack of purpose or motivation.
- We all want to be **in control** of our lives.
- Health care may impinge on **autonomy**.
- Stage and **age of development** affects adjustment to trauma.
- **Retirement from a job** is a major change in occupation.

- Retirement **can be** advantageous or disadvantageous to health.
- The move from **ability to disability to ability** requires transitions through rehabilitation.
- **Health care options** are available in the home, hospital, and community.
- People need to be kept **out of hospitals** and nursing homes and in their own homes.
- People can **live alone and benefit** from services; home health and assisted living.
- Individual meaning and control may **clash** with institutional and professional objectives; self-expression enables independent activity.
- **Funding** may come from federal, state, private, and community resources.
- "It takes a long time **TO GROW YOUNG".....**Pablo Picasso
- "**I never told anybody**...how beautiful the ocean was..."

References

Ackerman, D. (1990). A natural history of the senses. p xv. New York: Random House.

Butler, R. N. (1983). Ageism. In H. Cox (Ed.), Annual editions: Aging, p 67. Guilford, CT: The Dushkin Publishing Group, Inc.

Koch, K. (1977). I never told anybody: Teaching poetry writing in a nursing home. New York: Vintage Books, Random House.

Nelson, D. L., & Stucky, C. (1992). The roles of occupational therapy in preventing further disability of elderly persons in long-term care facilities. In J. Rothman, R. Levine (Eds.), Prevention practice: Strategies for physical therapy and occupational therapy, p 20. Philadelphia: W.B. Saunders Co.

Spencer, A. (1988). Functional restoration: preliminary Concepts and Planning. In H.L. Hopkins, H.D. Smith (Eds.), Willard and Spackman's occupational therapy, p 437, p 438. Philadelphia: J.B. Lippincott Company.

The Validation Therapy Approach to the Management of Dementia

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Abstract: This paper will describe a program of intervention which is specific to Dementia. Anne-Marie Kidd, an occupational therapist in Cape Town, South Africa, has had success in implimenting the Validation Therapy Approach to the management of the elderly person with Dementia. She is ackowledged for her major contribution to this article. At the outset, the concept of the Validation Therapy Approach will be described in detail. Concepts such as creating a sense of importance in the elderly person, allowing them to feel they have something to contribute, structuring activities so that the person with Dementia feels useful and optimising assets, are key issues in this type of therapy. An example of a unit that employs this type of therapy will be described in detail and a brief discussion will bring the article to conclusion.

Key words: geriatric management, dementia, occupational therapy, validation therapy approach

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Introduction

It is true to say that most Western societies support the philosophy that unless you remember something, it is not worthwhile doing. However in the person with Dementia, the feeling or ambience of the event will linger long after the memory has faded. Dementia may be a terminal disease, but it is not the end. (Alzheimer's Association 1999).

Anne-Marie Kidd, an occupational therapist, working in a home for the elderly in CapeTown, South Africa, has been part of a team who has implemented a very different approach to the management of the elderly, with specific emphasis on the residents with Dementia. This approach is called The Validation Theory. The essence of this theory is to communicate with the dementing person by validating and respecting their feelings in whatever time or place is real to them, thereby reducing the stress factors in the client and in the occupational therapist. The occupational therapist or family member, should avoid communicating failure such as "that is wrong", and in its place say "try another way".

Creating a sense of importance in the elderly is the aim of therapy. Structured activities that allow the elderly person to feel they are contributing to society, are important. It is

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important also to optimise assets and avoid using childish motivators such as sweets. Compliments are more effective and should be given immediately.

Over 10,000 Agencies who are involved in the management of Dementia, use the Validation Approach and over 80,000 books have been sold on the subject. Naomi Feil, who has been instrumental in developing the approach, has given over 50 television interviews about Validation.

Definition of Concepts

Dementia

An acquired global deterioration of memory, intellect and personality (Alzheimer's Association 1999).

Validation therapy

Validation Therapy is the process of communicating with a disorientated, elderly person by validating and respecting their feelings in whatever time or place is real to them, at the time, even though this may not correspond with our "here and now" reality. (Day 1997).

Validation Therapy (VT) was developed between 1963 and 1980 by a gerontologist, social worker, Naomi Feil, during her work with the elderly, in Cleveland, Ohio, U S A.

Description of A Residential Home Where the Validation Therapy Approach is Employed

An old home for the elderly in Cape Town was reconstructed and decorated in July 1997. The new decorations were done in accordance with 1940/1950 Western European cultural style. There were heavy, gold curtains, chandeliers and art deco furnishings. The premise for this type of furnishing was that it should be decorated in a style of an era that the residents remember well and should help put them at their ease. The rooms decorated in this fashion are called "reminiscence rooms". Other rooms, where residents can rest if they are agitated or tired are called quiet rooms. These are painted in dark green for a calming effect, and have a sleeper. There are also change rooms with spare clothing, incontinence products etc. should the residents require this assistance.

There are approximately 50 residents at the home between the ages of 65 and 100 years.

There is a team of health workers including nurses, occupational therapists, a social worker and consulting doctors. There is a strong team approach, which helps to create a therapeutic milieu in which the Validation Approach can be implemented.

The Program

The residents spend the whole day in group activities. Those that are very disruptive remain in the wards.

Each resident is assessed and placed into groups depending on their functional performance. The COPM (Canadian Occupational Performance Model, 1994) is successfully used by the occupational therapist for this purpose. This assessment can be repeated on a yearly basis, as well as with new admissions to the home. This assessment records their task behaviour on a 10-point scale and their general behaviour on a 5-point scale.

The program is structured and varied and activities are adapted for the needs and capabilities of the residents. Examples of activities are table games such as cards, dominoes, scrabble and bingo. The residents also take part in appropriate sport and exercise groups such as carpet bowls and also in crafts.

Music reminiscence groups form an important part of the program and volunteers provide exercises, music and dancing, art classes and outings in the nearby vicinity.

Cultural activities form an important part of the program and residents take part in celebrating various religious holidays.

Sensory stimulation is used by the occupational therapists with residents who are in a severe stage of Dementia. These residents cannot take part in task-orientated groups. Sensory techniques such as, eye contact to name calling, response to touch, smell and music are used to develop an alertness to the surroundings. Aroma-therapy is also used.

Management of the Residents Using the Validation Therapy Approach

In contrast to R O (Reality Orientation), and approach previously used in the past with the elderly, VT is based on the belief that there is logic behind all behaviour. Understanding the meaning underlying the individual's behaviour, rather than the awareness of reality, is the goal behind VT.

The definition of VT tells us that the process of communicating with a disorientated, elderly person, by validating and respecting his or her feelings, in whatever time or place is real at the time, even though this may not correspond with our own "here and now", reduces anxiety and supports self-esteem.

Residents are allowed to live in the past and reminisce. It is part of the program.

A sense of importance is also created by using structured activities and responsibilities. In this way residents feel they have something useful to contribute. No childish motivators are used such as sweets and staff avoid communicating failure. Instead of saying "that's wrong", they say "try another way" and demonstrate if appropriate. (Brodaty, 1999).

It is important to note that in the early stages of treatment for Dementia, R O is used in an informal way in order to orientate residents to their surroundings, date and time. Sometimes there is repetitive questioning and extreme agitation. Diversion through the use of activities works well to contain mildly agitated behaviour.

Restraints

Residents who display wandering and pacing behaviour, are allowed to do this freely. No physical restraints are used unless there are doctor's orders for safety reasons.

In the Western world there is a tendency to overuse medication (sedatives and psychotrophic drugs) in the management of the person suffering from Dementia in order to calm aggression, restlessness and agitation.

As little medication is given as possible. It is found that stimulation, socialisation and interaction with others maintains, and in some cases improve, cognitive, physical and functional performance, as well as provide a good quality of life throughout the progression of the disease.

Medication is needed but it needs to be strictly monitored and reduced when behaviours are more under control. It must never be used as a quick and easy way to manage difficult behaviour.

Support Groups for the Staff

There is a severe risk of burnout amongst staff in this kind of program. Regular groups are held for staff to discuss issues that affect them and case presentations stimulate interest in the approach to treatment.

Conclusions

The benefits of the Validation Approach to the treatment of Dementia have been clearly measured and stated by Naomi Feil (1997):

- Residents sit more erect and keep eyes open more often.
- They display more social controls and decrease crying, pacing and pounding.
- Aggression is decreased and as a result there is less need for chemical and physical restraints.
- There is increased verbal and non-verbal communication and gait is improved.

Effects that are more difficult to measure include:

- There is less anxiety
- Life tasks are resolved
- There is an improved sense of self-worth and they tend to withdraw less
- Residents may assume familiar social roles in the groups and develop an improved awareness of concensual reality.
- A sense of humour is often restored
- Deterioration is slowed down
- There is increased staff morale and a decrease in burn-out.

All of these assets add up to a different and successful new approach to the elderly, particularly in the treatment of Dementia.

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References

Brogarty, H. (1999). Help-notes. The Alzheimer's Association. NSW PO Box 42 North Ryde. NSW 2113 Australia.

CAOT (1994). Canadian Occupational Performance Measure. (COPM). (2nd Ed.) Ontario: CAOT Publications ACE.

Day, C. R. (1997). Validation therapy. A review of the literature. *Journal of Gerontology Nursing*, April: 29.

Feil, N. (1984). Communicating with the confused elderly patient. *Geriatrics*, **39** (3), 131–132.

Feil, N. (1993). The Validation Breakthrough. Baltimore, MD: Health Professions Press. The Validation Training Institute. (http://www.vfvalidation.org/article1.html)

Care of the Elderly in the 21st Century: A UK Perspective

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Abstract: This article is based on a paper presented at JAOT International Conference in Yokohama, 2000. It outlines care provision for elderly people in the United Kingdom, with specific reference to Scotland. It describes some of the problems that people may experience, the range of services available, and some of the challenges and dilemmas influencing the general provision of care. Examples of particular physical and psychological problems and the ways in which the community has responded to the needs of patients and carers, provide an illustration of the difficulties encountered. Reference is made to some of the principal non-governmental / voluntary organizations (NGOs) which provide advice or care. Two brief case histories are included as an appendix.

Key words: elderly, voluntary organizations, carers services

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Introduction

In considering the provision of healthcare, and the associated problems, it is important to remember that the majority of old people are well and leading active lives. We have special magazines for the elderly, packed with ideas and some very active groups making full use of varied post retirement opportunities, such as the University of the Third Age. Health promotion campaigns focus on healthy ageing and 70 year olds have a major input in our voluntary organizations.

There are 'silver surfers' (white haired users of the internet) and students - one of my fellow graduates from the Open University was aged 84. My neighbour purchased new furniture when she was aged 97! She is now 103 and lives in a nursing home for elderly people but when she was 100 she was living at home, alone. It is not uncommon to find people of that age, but when they reach it, they receive a telegram of congratulations from the Queen.

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Life in the UK - Some of the Problems Facing Elderly People.

Social isolation

Three generation family homes are not the norm in the UK and in fact 35% of elderly people live alone in the community. 40% live with a spouse, but are often geographically separated from their children and grandchildren.

Consequently, pet animals are important companions.

Loneliness also results from health problems, not necessarily major ones - I have always taught students that, simple though it may seem, sore feet are a major source of isolation. Reduced energy and tiredness are obviously also a factor.

Population

Scotland is a multicultural society, with many Polish and Eastern European immigrants as well as people from the Indian sub continent, Hong Kong and South East Asia. Thus some people find themselves growing old in an unfamiliar culture - another matter for consideration in relation to providing suitable care facilities. Refugees, an increasing number of whom are coming to Scotland, have additional problems. These problems are made worse by lack of knowledge of English. It is important to work with community groups, many of which provide excellent support for their aged members.

Financial difficulties

Pensioners have various benefits, such as free prescriptions, extra state Pensions at 80+, subsidised transport and price reductions in various public services. Attendance allowance is available for those who cannot manage daily living tasks without assistance. However, poverty is common and homelessness is not unknown in elderly people. One organization recently produced a poster entitled "Heating or eating?" For some people that is a real choice, even in the welfare state, though there are special heating allowances in the winter.

Stigma

There are some other less positive social issues, one of which is ageism. Pullen (1994) writes about negative attitudes, noting that these may relate to younger people's fears of becoming old and incapable themselves. There is a new campaign in the UK focusing on the problems of those seeking employment, but having an incurable condition - they are over age 45. That is age discrimination.

As suggested by the above, elderly people are not necessarily venerated for their wisdom and experience. They may be criticized and resented and in a minority of extreme cases, family members physically abuse their elderly relatives (referred to as 'Granny bashing') or refuse to take them home from hospital (Granny dumping). The strain of caring has become excessive and the family can't cope. Many citizens have been shocked and disturbed by recent publicity posters targeted at these areas.

Integration

To counterbalance the issues described above, it is important to recognize a few of the many positive Initiatives which exist. Many communities have introduced reminiscence projects, in which elderly people tell the younger generation about their experiences, thus ensuring that information is documented for the future instead of being lost. Young people's groups visit homes for the elderly and several volunteer projects provide transport to social occasions, such as tea parties in someone's home.

Summary

Although the focus of this section has been some of the problems which occur, it is important to remember that for the majority of elderly citizens, old age is not a time of illness and inactivity. There are however, as elsewhere, close links between social deprivation and ill health, and disparities in provision between urban and rural communities.

Provision of Services

There have recently been many changes in the provision of health care within the UK, and the government is constantly criticized for not providing adequate care. This is not unique to the UK! There is a rapid increase in the number of elderly people, a population which will continue to grow during the next few years and it can be confidently predicted that further changes will be required in order to meet their needs effectively.

Health care in the UK is administered in three systems - by different Government departments, voluntary organizations (NGOs) and private care

schemes. Care of the elderly comes within all these systems and occupational therapists are employed in all the contexts.

As stated above, there are differences in service provision between rural and urban communities and smaller population in some of the more geographically distant and isolated areas are less well provided for.

The National Health Service

The state run National Health Service provides comprehensive free health care to all citizens and is funded by contributions (known as national insurance) from people's salaries. It includes general hospitals, specialist units and community based primary care delivered by general medical practitioners, nurses and other health workers. The emphasis is on short term admissions; day care and care in the community, both for follow up and as an alternative to admission. Many of the original psychiatric hospitals have been closed and mental health care is also community based, or within general hospitals.

For medical purposes, people are classified as elderly at age 70. Care of the elderly may be within separate geriatric hospitals or integrated into general hospitals. In reality, the high proportion of elderly people receiving in-patient care means that most units will have elderly patients. The need for terminal care in specialized units is becoming more widely recognized.

Geriatric hospitals provide care within psychiatric and physical wards and day hospitals. This will usually mean separate wards for people with neurological and cardiac or respiratory problems and GORUs - Geriatric orthopaedic rehabilitation units. There are also wards providing long term care.

In the field of geriatric psychiatry, there are separate sections for functional and organic illness to divide people with problems such as depression from those who are elderly and confused. Again these include wards and day hospitals, and long term care. In addition, adult psychiatry hospitals may have separate geriatric units.

Inevitably, due to the multifactorial aetiology of difficulties in old age, people require assessment for different problems, which cannot be dealt with in one location. Often acute care is in a general hospital, followed by continuing care in a rehabilitation unit in a geriatric hospital.

Thus there are several patterns of care provision within the NHS.

Social work services

The second major area of state provision is through Local Authority community based Social Work Departments which administer care in people's own homes. Now that there is rapid discharge, and also a policy to maintain people outwith hospital, this sector of care has an increasing role to play.

There are day centers, with a social rather than medical focus and people are provided a wide range of services for example home helps who undertake domestic tasks, and 'meals on wheels' - school meals delivered to the housebound by volunteers.

Occupational therapists play an essential and accepted part in all this and are responsible for assessing requirements for gadgets and housing modifications required for people to cope at home. A recent study by Walker et al (1999) demonstrated that people not admitted to hospital after having a stroke, who received occupational therapy in the community, were more independent in daily living tasks after 6 months than those who had not had occupational therapy input.

Understanding all the benefits and entitlements is complex and needless to say there is never enough money to provide all the things that people would like.

Private care

Lack of state provision encourages the development of private resources, another major source of care, which links closely to the development of insurance related work. Private sector initiatives include hospitals and nursing homes which provide long term care; community home based care services; housing and holidays for the elderly; and manufacturers of equipment such as stair lifts and gadgets for disabled people. Private enterprise also includes service providers such as the Gas Board, which will arrange adapted

equipment for those who need it and carry out safety checks on heating and cooking appliances. Such service may in reality be free to users.

Waiting lists for hospital admission for elective surgery such as hip replacement, have led to the development of private insurance policies to cover the cost of treatment and as acute care. Policies are now available for provision for disability and long term care. Some of these may be corporate policies which continue from the workplace into retirement but many are paid for by individuals and this is becoming big business in the more wealthy social groups, away from the ethos of the original NHS. Private but unregulated hospitals are developing to provide care and staff work between the state and private sectors.

Voluntary organizations - NGOs

The final significant source of care is from voluntary organizations, of which there are many, providing a wide range of expertise. These commonly focus on the needs of specific diagnostic groups such as people with dementia or stroke and provide social activities, day care and support. Research into treatment methods and illness processes is also undertaken.

There are housing associations which provide accommodation for the elderly and action groups e.g. Age Concern, which focus on the rights of elderly people. Charitable bodies may assist with welfare issues including specific grants of money. It is essential for occupational therapists to work in liaison with these organizations and some are employed within the voluntary sector.

Lay sector care

It would be wrong to omit the amount of care undertaken by the lay sector, in other words neighbours, friends and family. This burden of care, now acknowledged by WHO, poses difficulties for some people, who may have to give up a job in order to care for an elderly relative. The consequent financial strain may be considerable. Equally, the physical demands of caring may be impossible for an equally or disabled elderly relative. Without this input of care, it would however be impossible to cater for the needs of elderly people.

Summary

It can be seen that health care provision is complex for everyone, not least the consumer. There is joint work between agencies and increasingly, elderly people requiring long term care are being referred to private resources, receiving economic assistance from the state.

Social / Political Issues to be Considered for the Future

Looking ahead, as indicated above, there will continue to be a rapid increase in both the number of elderly people and the ratio of elderly to younger people within the population. As people live longer, the proportion of frail and more seriously disabled individuals will multiply. Consequently, the demand for care will increase. It is a fact that the more care is provided, the more expectations for care provision are raised. There are dilemmas for private agencies and competition in the market system.

Cost

The cost of state services is met through working people paying national insurance - pension contributions- and it is likely that in future contributions will increase and there may be reduced access to free care. As the population distribution alters, it may even be difficult to find people to provide care.

To reduce state outlay, the age of receipt of state pension has been increased to 65 for both men and women. (Previously women received it at 60). This means a longer working life, and hence longer contributions, which may enhance expectations. This change is being implemented over a period of years, so that those at present in their 50s are not affected.

A Royal commission on the elderly was set up to examine care provision and its report entitled ‘With Respect to old Age’ concluded that the costs of long term care should be divided between living costs, housing costs and personal care. Personal health care should be available after assessment, according to need and paid for from general taxation. The rest (living and housing) will be paid by the person, according to means. Thus there is

joint work between agencies and increasingly, elderly people requiring long term care are being referred to private resources, receiving economic assistance from the state.

However, these recommendations are not yet fully implemented and the financial strain may therefore be considerable, with some people selling their homes in order to pay for care. Anyone who has savings over 15,000 pounds (2001) does not receive free care.

The Scottish Executive has recently announced a financial package to help carers, meaning the family. This extra provision is something that occupational therapists must consider in setting up treatment packages, in order to ensure that those who need such help receive it.

Regulation of residential care provision

In relation to long term care, residential homes require careful regulation and local / city councils have established registration procedures and monitoring systems in order to ensure that strict standards are met. Similarly, nursing homes are monitored by Health Boards. This has resulted in several small facilities being closed, with the consequent loss of more homely environments.

Legal issues

Nations within the UK have always had centrally funded, tax based care, but separate financial allocation and organization. The new separate parliamentary bodies in Scotland and Wales are independent of the English system and this has enabled separate legislation to be enacted, for example the Adults with Incapacity (Scotland) Act 2000, which gives rights to people affected by chronic illness, notably dementia.

This provides safeguards to protect the interests of vulnerable people in relation to financial and welfare matters. People are able to appoint a Power of Attorney - a trusted person who will make decisions on their behalf Such appointments are supervised by the Public Guardian, and in the case of someone who is confused, must be signed by a doctor or solicitor. Advocacy services for those in long term care have recently been established to complement the above provisions.

Ethical issues

Some current aspects of treatment pose ethical issues for staff including occupational therapists whose Code of ethics requires them to treat everyone equally. Medical developments lead to costly treatment procedures and prolonging of life. Expectations for cure are high. How do staff chose who gets what form of care? There are criticisms that elderly people are overlooked in favour of those who are younger. In order to combat such problems the National Institute for Clinical Excellence was set up by the government to audit services and new treatments and to provide guidelines for prescription of drugs.

People do not want to live in a state of profound handicap and wish to make 'living wills' to prevent this. These are documents signed by a medical practitioner known to the individual, and are a legal statement of the person's wish not to have prolonged treatment in the presence of severe disability. Some opt for euthanasia, which is not legal.

Policy planning

Another reality that provision of services often relates to political issues. At election time care of the elderly does not always lead to votes and thus becomes a low priority in policy planning.

Specific Health Issues and Medical Problems

Physical disability

Considering physical disability / medical problems affecting the old and the very old, there are problems common to all countries with an elderly population: fractures - especially of the femur, falls, trauma, arthritis, sensory impairments; long term severe disability, and the vulnerability of general frailty. Palliative care in the community is now commonplace.

Hospital admission is usually for as short a time as possible and people are returned to their own homes in the community, where both medical and social services have responsibility for continued treatment and care. Despite the rise in the number of old people, recent policy has been to

reduce beds and this situation needs to be reversed. Although day hospital places have increased, there are demands on family carers and there is a need for respite facilities for those with long term conditions and the multifactorial problems of old age. During recent flu epidemics it has become apparent that convalescence beds are lacking for those requiring less intensive hospital care.

Health promotion focuses on diet and exercise, there are programs related to prevention of falls. The value of short term rehabilitation in prevention of long term problems gains new significance.

An organization which contributes much for those affected by specific disabilities is Chest Heart Stroke Scotland. This was founded over 100 years ago to help people with TB and its work has grown. It provides. a telephone helpline and advice on welfare and resources, research grants, (including one looking at community based occupational therapy), health promotion material and training for health professionals and the general public.

One of its special services is the provision of 'stroke clubs'. These are social clubs, staffed by speech and language therapists working with volunteers, where people with speech problems can meet others with similar difficulties and also be encouraged to use any residual speech. Physical exercise and getting to the club are important aspects and the psychological benefit of a social outing cannot be ignored.

Mental health

In the field of mental health, obviously there are all the problems of younger age groups such as depression, substance abuse and psychoses and now there are older learning disabled people (mental handicap), living in the community, their needs require consideration.

The greatest need for care and development is in the field of dementia- 'the quiet epidemic'. The future number of people with dementia cannot be ignored. In global terms, the number oft hose affected in 2000 was 18 million, 2/3 of whom live in developing countries. 61,000 live in Scotland, of whom one third have moderate to severe dementia. Globally, 34 million sufferers are predicted by 2025. This represents a challenge for those providing assessment and care.

But,

> 'Expertise is emerging which is helping to make the experience of dementia, for both the person with the dementia and the people who care for them a less devastating experience'. (Professor Mary Marshall, Dementia Services Development Centre, Stirling University).

This multidisciplinary centre has a research and educational focus and produces reports and practice guides on numerous topics - architectural planning, furnishings such as chairs, taps, alarms, assessment and special aspects of care, e.g. spirituality, sexuality and challenging behaviour. Occupational therapists are fully involved in this work.

Reporting on one research study focused on people's subjective experience of dementia, Goldsmith (1995) writes on advocacy - 'Hearing the voice of people with dementia' and stresses the value of reminiscence, and life story. He also mentions the value of non verbal communication, all of which are recognized as integral to occupational therapy.

A voluntary organization with which occupational therapists work closely is Alzheimer's Scotland - Action on Dementia. This tackles education, publicity and awareness campaigns, research into the efficacy of new drugs e.g. aricept and dilemmas such as should someone with dementia be told his or her diagnosis?

ASAD provide identity cards for dementia sufferers, a 24 hour telephone helpline, day care, long term care, respite, and holidays. Carers support groups help to reduce the physical and emotional strain, though assessment of need may be difficult, as often relatives hide problems. Outreach workers for minority ethnic groups are available to provide specialized support.

Summary

Essentially, there is mixed responsibility care - state, family and volunteers.

Occupational Therapy

What are the implications for occupational therapy? There are over 21,000 registered occupational therapists, (June 2000) of whom roughly three quarters are members of BAOT. Some work in private practice, including insurance related work, but the majority work in the health or social services. This division of practice is one which sometimes creates difficulties in continuity of treatment from hospital to community.

The more I see of occupational therapy in other countries, the more similarities I see, rather than differences. Services in the UK are not greatly different from those described by Tamaru (1999).

Using a client centered assessment, the therapist will devise a plan of treatment which can be evaluated and revised. The aim will be to maintain and wherever possible regain abilities and skills, be it to be independent in personal living skills, use a bus, or enjoy community resources. In the same way as in other places, therapists have preferred theoretical approaches, frames of reference and therapeutic media, but the client's priorities will be acknowledged.

Review of assessments has been undertaken by Tullis and Nicol, (1999) and Thom and Blair (1998) have considered risk in relation to dementia. More attention is given to research and Mountain (1998) has published information on evidence based practice relating to the elderly. Co-operation with other organizations is important, such as the development of practice guidelines for stroke with the Royal College of Physicians.

Hagedom (1995) has described therapists as 'discharge technicians' - a bit extreme perhaps, though fast track programmes and rapid discharge are of economic importance. Outcome measures are now well established, as are audit and quality. My ultimate quality question is - would you like you mother to be treated like this?

Information Technology is not, it is to be hoped, going to lead to virtual treatment, but Information management and effective use of the internet is vital. The elderly use it!

Some other aspects of practice are gaining importance. Evening and weekend work are now commonplace and new areas of work are being established, for example, advocacy services; which although not solely for the elderly, have recently been established for those in long term care. A parallel is the work of the Mental Welfare Commission which monitors psychiatric services and investigates complaints relating to care. For some years an occupational therapists has been appointed as one of the commissioners.

Another important aspect is education for therapists, beyond the level of first degree qualification and Masters. Evidence of continuing professional development is now a requirement for registration and employment. Masters programmes related specifically to gerontology are being developed and membership of the COT specialist section for practitioners working with elderly people is expanding rapidly.

Personal Conclusion

Within all this, we have to remember our roots, and the value of activity. Creek (1997) writes about creative activities and a personal example will endorse this. One man told me recently that his wife had 'run out of sewing', (one activity which she can still carry out independently), with consequent agitation and stress for them both as she wandered without purpose. Small, but it's the base of our profession. Occupational deprivation is recognized within the developing sphere of occupational science and is highly relevant to the elderly with diminishing abilities.

In conclusion, the only thing I can confidently predict is change. However, I believe our future is with the elderly. They are the last source of our history. We should appreciate them and value them, which means doing all that we can to ensure that satisfactory care is provided.

Appendix - Two Case Histories

James, aged 90, married, living with his wife Susan (91). 3 children living in other cities in Scotland and several grandchildren and great grandchildren. They own their house which is

situated near to shops and public transport and built with two floors.

James had a history of falling, probably due to insufficient cerebral blood supply, although this has had no effect on his mental health. His memory is generally good, though some deterioration has been noted by Susan.

One day he fell heavily, and sustained a fractured neck of femur. Initially he was taken to the general hospital receiving emergency cases, and from there to the orthopaedic hospital where he received a replacement hip joint. He was again transferred to a geriatric unit at a rehabilitation hospital, where he is receiving physiotherapy and occupational therapy.

He is very keen to go home and is rather unrealistic about how well he will be able to cope.

Like an increasing number of people, he already has a privately owned motorized scooter which he uses for getting around in the neighbourhood. His wife is worried about how she will cope with his more restricted level of mobility, particularly as there is no downstairs bedroom or bathroom.

The social services therapist has previously visited to organize the provision of bathing / toilet aids and is now advising on suitable furniture, alterations to convert one room to a bedroom and to install a shower room and toilet. The couple will contribute towards payment for these alterations.

These alterations are being made and James hopes to go home soon. The couple have a home help each day, to assist with cleaning, shopping and cooking and they pay for this service.

It can be predicted that there will be some problems, and Susan will find caring for him tiring. Nevertheless, they have been married for 60 years and it is desirable (and also economic) that he should return home.

In contrast, Mary lives with her husband Kenneth in a small flat which they rent from the council. He retired early with respiratory problems and the couple receive financial benefits and some social service help with cleaning and shopping.

They have no family, but good neighbours.

Mary has become increasingly forgetful and takes less care over her appearance. She gets agitated easily and can be quite irritable. Kenneth has to watch what she does when she is preparing meals because she recently failed to light the gas cooker after she had turned it on. He is becoming worried about her ability to cope. Last week she went out alone and a neighbour had to bring her home.

Mary was referred to the local geriatric hospital by her general practitioner. The psychiatrist examined her and suggested that she might attend the day hospital two days each week, to provide a break from caring for Kenneth. Here she receives supervision for her personal care and takes part in occupational therapy, including domestic skills and reminiscence groups.

In future, as she deteriorates, it is likely that services such as the home help, incontinence laundry service and respite care will be necessary. Her attendance at the day hospital may be increased and staff here will liaise with her general practitioner and social service staff.

Kenneth has information about support groups for carers of people with dementia, and one of the volunteer helpers will provide transport to enable him to attend a group every month.

It is important to make every effort to ensure that his state of health is maintained in order for him to care for Mary for as long as possible. Kenneth does not like the idea of long term care for her, but this may eventually be required.

References / Sources of Information

Alzheimer's Scotland, Action on Dementia (2001). Newsletter Issue No. 34, June. (http://www.alzscot.org)

Chest, Heart & Stroke Scotland. Annual report (2000). (http://www.chss.co.uk)

Creek, J. (1997). Occupational therapy and mental health (2nd ed.). Edinburgh: Churchill, Livingstone, Chapter 7.

Dementia Services Development Centre, University of Stirling, Scotland. (http://www.stir.ac.uk/dsdc) Recent Reports include: A practice guide for community nursing: Supporting people with dementia and their carers in rural communities. Taps.

Goldsmith, M. (1996). Hearing the voice of people with dementia. London: Jessica Kingsley, Chapters 8 & 10.

Hagedom, R. (1995). Occupational therapy. Perspectives and processes. Edinburgh: Churchill Livingstone, Chapter 1.

Mountain, G. (1988). Rehabilitation of vulnerable older people. Nature of the evidence base and implications for occupational therapists. College of Occupational Therapists, UK. Summary available from COT. (http://www.cot.co.uk)

National Clinical Guidelines for Stroke. Royal College of Physicians Publications Unit. (www.rcplondon.ac.uklceeu_stroke_home.htm)

Pullen, I. (1994). Old Age. In C. Hume & I. Pullen (Eds.), Rehabilitation for mental health problems, Edinburgh: Churchill Livingstone, Chapter 11.

Tamaru, A. (1999). Occupational therapy in the Japanese community—relating to the ageing society. *WFOT Bulletin* **40**, 12–20.

Thorn, K. & Blair, S. (1998). Risk in dementia - assessment and management: a literature review. *British J Occup Ther* **61** (10), 441.

Tullis, A. & Nicol, M. (1999). A systematic review of the evidence for the value of functional assessment of older people with dementia. *British J Occup Ther BJOT* **62** (12), 154.

Walker, M. F., Gladman, J. R. F., Lincoln, N. B., Siemonsma, F. & Whiteley, T. (1999). Occupational therapy for stroke patients not admitted to hospital: a randomized controlled trial. *The Lancet* **345** (9175), 278–280.

CHOICE: Innovation in Community Care for the Elderly

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Abstract: Identifying effective preventive interventions which can preserve the autonomy and the maintain health of elderly persons living in the community is paramount. Health service restructuring in Alberta, Canada provided the impetus to implement an integrated community-based program to address the fragmentation and lack of coordinated services for the frail seniors. The program content and approach taken by two organizations in partnership with the Capital Health Authority (CHA) in Edmonton, Alberta is described The outcomes study results of a recent evaluation of the CHOICE program is reviewed.

Key words: elderly, community, innovation

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The graying of North American society and those of other developed countries in the world such as Japan is bringing increased attention to the needs, services and resources required by the elderly. Particularly, identifying effective preventive interventions which can preserve the autonomy and maintain the health of elderly persons living in the community is paramount (van Haastregt, 2000). Of concern though, are the societal barriers to the empowerment of the elderly, specifically the frail elderly and the burden of care on families (Ikegami, 1998; Capital Health Authority, 2000a).

Health service restructuring in Alberta, Canada provided the impetus to implement a program to address the fragmentation and lack of coordinated services for the frail elderly. This paper describes the program content and approach taken by two organizations in partnership with the Capital Health Authority (CHA) in Edmonton, one of 17 regional health authorities in the province (Capital Health Authority, 2000b). The content of the rest of this paper is taken from the two references of the Capital Health Authority with their permission and on their behalf.

Based on the Program for All Inclusive Care (PACE) (Richardson, 1998). The Edmonton program, Comprehensive Home Options of Integrated Care for the Elderly (CHOICE) was

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#Adapted on behalf of the Program Staff of CHOICE, Capital Health Authority, Edmonton, Alberta, Canada

Table 1. Selected outcomes studies results clinical

	Improved	Deteriorated
Self Reported health status	Within 3 month admission	
Perceived quality of life	Within 10 weeks of enrollment	
High level of satisfaction		

initiated in 1996 first as a pilot project and then as continuing program within the CHA It is one of a variety of programs within the Home Care and Regional Continuing Care system of the province (Capital Health Authority, 2000a & 2000b).

Program Objectives and Outcomes

CHOICE focuses on meeting the health and social needs of older persons through a systematic and integrated approach that is community-based. Its objectives are to reduce acute care utilization, avoid premature institutionalization in long term care facilities and to maintain very frail elderly people in the community Based on the Program for All inclusive Care (PACE) (Richardson, 1998). The Edmonton program, Comprehensive Home Options of Integrated Care for the Elderly (CHOICE) was initiated in 1996 first as a pilot project and then as continuing program within the CHA I t is one of a variety of programs within the Home Care and Regional Continuing Care system of the province (Capital Health Authority, 2000a & 2000b). An evaluation of CHOICE in 1998 used five major components: program description, organizational review, program evaluation, outcome study and cost analysis[1]. A brief review of the outcome studies result follows.

The inpatient and ambulatory care visits to CHA acute care facilities were tracked for the period of January 1, 1995 to January 31, 1998. At the time of the study cut-off date, 214 of 354 clients admitted to the CHOICE program were still enrolled. The results were adjusted to reflect the likelihood of accessing hospital prior to CHOICE admission.

Quality of life rating showed a statistically significant difference between entry and 10 week post- enrollment (Table 1). Satisfaction with the program was at the 95th percentile while 91% were either satisfied or very satisfied with attending the day health centre (Table 2 & 3).

From these data, the costs savings of the program are apparent (Table 4).

Overall the evaluation documented the cost-effectiveness of the CHOICE program model. The savings in the ambulance claims. Were around 10.6% and the pharmaceuticals claims were reduced by 86%. A third party insurer, Alberta

Table 2. Selected outcomes studies results inpatient utilization

	Reduction	Increase
Overall costs	50%	
Admissions	30%	
Hospital stays	55%	
Anticipated cost per client	$ 11.38	
Annualized cost of census	$ 1,121,499.00	

Table 3. Selected outcomes studies results ambulatory care utilization

	Reduction	Increase
Visits	25%	
Costs per client per year	$ 138.00	
Annualized cost of census	$ 37,260.00	

[1]For information on the findings of the full evaluation please contact the CHA directly: alemire@cha.ab.ca

Table 4. Utilization cost analysis

Per diem costs	Reduction	Increase
Inpatient	$ 11.38	
Ambulatory	$ 0.37	
Ambulance	$ 0.07	
Pharmaceuticals	$ 2.87	
Provider visits & services		$ .0.56
Total per diem	$ 14.13	

Blue Cross, saved approximately 87% in payouts for the study period.

Core Program Elements

The program provides full 24-hour care through a multi-disciplinary team of professionals; these include a physician, a registered nurse, a social worker, rehabilitation therapists, pharmacist, dietician and other health workers. The multi-disciplinary team uses a case management approach to supervise each program participant's care.

Day health center

All participants attend the day health centre located at a CHOICE site. The centre is open five days per week, with participants attending between 9:30 a.m. and 4:00 p.m. The number of days that participants attend the centre each week depends on their needs as assessed by the team. Day centre services include personal care and grooming, individual and family support, recreational and social activities, rehabilitation, health promotion activities and a meal service.

Health clinic

Each participant's medical needs are addressed at a health clinic located within the centre. Each participant is assigned to one of the clinic physicians who coordinate his/her services with the clinic nurse and a pharmacist. When admission to an acute care facility is needed, the clinic physician is the admitting physician. Services not routinely available on-site are accessed through consulting or referral arrangements. These include: audiology, dental care, diagnostic imaging, laboratory, medical specialties, nutrition, optometry, ophthalmology, podiatry, psychology, respiratory therapy and speech-language pathology.

Home support

Most participants require assistance within their homes in order to maintain their independence. They also require help in getting ready to attend the day centre. Services provided in the home include meal delivery service, personal care, adaptation of the home environment and provision of aids, home-making services.

Transportation

The program contracts transportation services involving wheelchair accessible vans. Drivers take participants to and from the day centre and will provide transportation to other appointments.

Sub-acute care

Each site maintains a small number of designated beds (usually three per site) to accommodate participants with sub-acute needs who can be managed outside an acute care hospital with the capabilities and resources of the CHOICE program. The beds are used for four purposes:

Treatment—for direct admission from emergency, early discharge from acute care, short-term acute illness or short-term intensive rehabilitation;

Respite—for emergency or scheduled respite needs;

Night care—for when participant's caregiver requires night respite;

Holding bed—for when participant is awaiting placement in a long-term care facility.

The designated beds are located within the program and are staffed by CHOICE personnel on a 24-hour basis. The CHOICE clinic nurse and physician during clinic hours, or the on-call nurse and physician outside of clinic hours determine the Alberta for use of the beds.

Mental health

The recognition that a number of persons

with a severe and persistent mental illness were unable to function in the mainstream CHOICE program led to a collaboration of CHA with the Alberta Mental Health Board on a special one year pilot CHOICE program to meet their needs. (February 1999). No further information was available at the time of writing.

Emergency response

An on-call nurse is available to respond to issues arising during the health centre's off hours, nights and weekends.

Service Processes

Referral and intake

Referrals to the program are made through the Capital Health Authority's single-point-of-entry system. Home care coordinators complete an Intake Request form and forward it to the CHOICE© intake coordinator. After notifying the family physician of the referral, the intake coordinator meets with the potential candidate and family representatives to provide information about the program and to determine the candidate's interest in and eligibility for the program.

If, after this intake assessment, the decision is made to proceed with the referral, the candidate is assigned to the CHOICE site closest to where they live or to the site, which offers a specialized program. A team conference is held at the referral site where the intake coordinator presents the information available about the participant. The decision to accept a candidate for trial admission is made by the team members based on the information presented.

CHOICE Eligibility Criteria

- Candidate is at risk for placement in long-term care
- Candidate's history includes frequent incidents of hospital or health centre usage
- Candidate's physician is in agreement with the referral
- Alternate, less comprehensive services have been tried and do not meet the candidate's needs
- Candidate's needs appear to be within CHOICE resources
- Candidate needs assistance with activities of daily living
- Candidate has a support network committed to the candidate staying at home.

Trial Admission and Assessment

If the team decides the individual is a suitable candidate for the program, a trial admission of five consecutive days is scheduled. This trial allows the candidates and their caregivers to see whether the program will serve their needs and enables the team to determine, from their perspective, whether and how the program can meet the candidate's needs. Assessments are conducted in the core service areas: social work, medical, physical therapy, occupational therapy, nutrition, home support, recreation therapy and pharmacy.

At the end of the five-day trial period, the interdisciplinary team meets to discuss the assessment results and make the admission decision. The candidate's home care coordinator is invited to participate in this conference.

CHOICE© Admission Criteria

- The needs of the candidate cannot be met by less comprehensive programs in the community
- Interdisciplinary team assessments indicate the individual has potential to benefit from interdisciplinary interventions and regular monitoring.
- The program has the resource capacity to meet the individual's care and medical requirements
- Anticipated length of stay at CHOICE must be minimum of three or more months
- The individual and family are committed to having the individual remain in their own home
- The individual and family are committed to scheduled regular attendance at the Health

Centre and compliance with services co-coordinated by the team
- Care can be managed within the individual's home environment
- Behavior of the individual is not problematic to the safety of other participants or staff
- The individual is able to use the transportation provided

Additional criteria are available for individuals who are candidates for the special program units.

Service Planning, Implementation and Monitoring

After the interdisciplinary assessment has been completed, the team jointly develops a service plan, identifying health care needs, goals and team interventions in areas such as physical health, functional status, nutrition, continence, social issues, socialization, recreation, pain management, mental and emotional health, medication, home support needs, participant and caregiver compliance and safety. All team members are responsible for implementing the service and contributing to the achievement of the established goals.

Every morning before participants arrive at the centre, team members meet to identify and problem-solve any issues that may have arisen about the program participants. Each individual's service plan is formally reviewed and updated every four months.

If a participant requires services beyond those offered directly through the program, staff would organize access to these services. This may involve arranging for specialists to come to the day health centre or for the participant to be taken to an external clinic.

Discharge

One of the objectives of this program is to maintain individuals in the program for as long as possible by changing, adapting and increasing services, as participant needs change. For this reason, discharges to other continuing care programs are minimized.

Program Participants

Types of participants

The individuals attending the CHOICE program may generally be described as falling under one of the following four categories:

Functionally frail—These individuals have a high need for personal care and are high users of home support services. They generally attend the day health centre between two and three days per week and have the longest length of stay with the program.

Medically frail—These individuals demonstrate a high number of medical conditions and are high users of the program's medical and after hours on-call services. They attend the centre the least often of the four groups.

Chronic mental illness—These individuals often have special day program needs. They are high users of social work, medical and on-call services. Compliance with program policies is frequently an issue for these individuals.

Dementia—Because of the high stress levels for caregivers committed to maintaining their family members at home, care of these individuals generally involves high use of family support and respite services. They are the lowest users of medical and rehabilitation services. Generally, they attend the day centre five days per week and may be placed in the program's secured unit. This group of individuals demonstrates the shortest length of stay with the program.

Success Factors

In reviewing the evaluation findings, the main contributing factors to CHOICE meeting its program objectives include:
- Integrated team-case- management approach
- Primary care physicians as team members
- Preventative and early intervention focus

The combination of well-qualified professional and support staff provides the foundation of the program. Some staff get to know the clients well. They are able, through their

contacts with clients in the day program and the home, to observe function and detect changes early. Physicians are active team members attending family and team conferences, admitting clients as needed, acting as liaisons with referring and admitting physicians in acute care and providing for early discharge to designated CHOICE beds in the continuing care system. They also contribute to the education of medical students and family medicine residents.

Site staffing is made up of 6.8 full time equivalents (FTE's) for therapy professionals (physical therapy, occupational therapy, social work recreation, and dietetics) and 19.3 personnel support personnel. For the Day Centre: 1:0 FTE physician, 3.0 FTE's nurses for the clinic and 3.1 for the treatment beds. Administration has a combined 6.8 FTE's in management and clerical roles.

Conclusion

Empowering the frail elderly needs careful interpretation and sensitive programming, as it has attendant risks and different interpretation in the context of health, social service delivery and housing options. It also requires time, energy, money and a commitment to the goal and vision (Heuman, McCall, & Boldy, 2000). The Alberta government's vision on healthy aging is compatible with these views and is captured in recent health related publication on future policy and action (Alberta Health & Wellness, 2000). CHOICE is an example of a positive undertaking.

The CHOICE program in Edmonton, Alberta, successfully demonstrates the ability of program planners to take a model developed elsewhere and to adapt it to a local context and situation. The Capital Care Group (public) and the Good Samaritan Society (voluntary non governmental organization) worked collaboratively with the Capital Health Care Regional Health Authority to develop and implement the CHOICE programs. CHOICE offers a cost-effective integrated service to manage in the community very frail people who cannot manage with just Alberta Home Care and other programs.

References

Alberta Health & Wellness (April 2000). Strategic Developments and Future Actions: Health Aging and Continuing Care in Alberta. (Retrieved January. 2001 from www.health.gov.ab.ca/public/documents)

Capital Health Authority (2000a). Comprehensive Home Options of Integrated Care for the Elderly (CHOICE). Program description. Edmonton: AB.

Capital Health Authority (2000b). CHOICE Comprehensive Home Options of Integrated Care for the Elderly (CHOICE). A power point presentation. Edmonton: AB.

Heuman, L. F., McCall, M. E., & Boldy, D. (2000). Empowering Frail Elderly People: Opportunities and Impediments in Housing, Health, and Support Service Delivery. Westport, Conn: Praeger Publishers.

Ikegami, N. (1998). Growing old in Japan. Age and Aging. May. (Retrieved June 26, 2001 from www.findarticles.com/cf_0/m0999/7237_320/61522839/print.jhtml)

Richardson, S. K. (1998). Medicaid Directive. Washington: Health Care Financing Administration, US Department of Health and Human Services, Centre for Medicaid & State Operations.

Van Haastregt, J. C. M. (2000). Effects of preventive home visits to elderly people living in the community. British Medical Journal. March 18. (Retrieved June 26, 2001 from www.findarticles.com/cf_0.../article.jhtml?term=%2Baged+%2Bcare+%2B+community)