Development of a Community-based Care System Model for Senior Citizens in Tehran
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Abstract
Objectives: In Iran a considerable percentage of old people “live” in the society who need to receive specialized health services. In order to respond to these care needs, developing and implementing health and social care systems with consideration of relevant factors such as: existing resources and facilities; social and cultural issues and characteristics of each groups of elders (healthy elders, frails, home bounds,...) seems to be necessary.

Methods: At the development phase of the care model in this study methodological triangulation including:

2. Conduction of an ethnographic study on a number of Tehranian elders and their families.
3. Seeking opinions of a group of experts on this issue using nominal group technique, and analysis and synthesis of the collected data were employed to develop a community based care system for elders.

Results & Conclusions: The preliminary results of employing this care system and examination of expected outcomes such as enhancing quality of life and hope in elders reflects the efficiency of this system, although further complementary studies and particularly cost benefit analysis ones are strongly recommended.

INTRODUCTION
As we know in recent decades the human societies have been faced with a great challenge that is unprecedented rising of their elderly people as a consequence of more healthy environments and lowering mortality rates. It is estimated that in 2020 one billion of world population will be older adults and 60% of this number would live in developing countries and unfortunately these societies are not prepared to encounter with aging phenomenon and its social, economic and medical repercussions. (Bartz, 1996) optimize the health status of elders. (Eliopoulos, 1999)

Delivery of effective and efficient nursing care to any group of clients depends on recognition of their uniqueness and conduction of comprehensive health care needs assessment. Nursing as an academic discipline has adopted a holistic approach to the clients; their environment and any other influencing factors. (ANA, 1982)

Recently the philosophy in gerontological nursing has been changed dramatically and this discipline has adopted a health promotion and disease prevention orientation. As a result in gerontological nursing it is a great emphasize on active and healthy aging and autonomy and self dependency of elders. (Ebersol, 1990)

In recent years a variety of system models for providing community based health care services to the elderly has been envisioned and implemented in the developed countries which meet the special care needs of different groups of elders. Day care centers, home health care services, skilled nursing care facilities, nursing homes, congregate housing and hospice care are some of these services. (Stone, 1999)

On the other hand in Iran as a developing country provision of specialized health and social services to elders in many extents has been ignored and only in end stages of elders life this issue goes under consideration by one of the following
Development of a Community- based Care System Model for Senior Citizens in Tehran

traditional ways:

- provision of informal home care by elder's relatives and lay caregivers
- Signing a contract between the families and private home care agencies that in many cases don't have required licensures and primarily with profit incentives deliver their under standard services.
- Transfer of dependent elder to a nursing home as last and worst resort due to exhaustion of limited resources in family caregivers. (Rastegarpour, 1999)

Todays it is strongly recommended that all needed health services to aging people should be provided to them in their residential places and in the community. The reasons for this emphasize are as follows: 1) it is known that elders are more comfortable and feel in ease while are in their homes; and 2) many studies have showed that community based and home health care are most cost benefit than hospital based services.

In Iran, a considerable percentage of old people “live” in the society who need to receive specialized care and health services. In order to respond to these needs; planning and implementing health and social care systems with consideration of factors such as: existing and available resources and facilities (financial and manpower); social and cultural issues and special characteristics of various groups of elders (physically fit, frails, home bounds) seem to be necessary.

Self reliance and ability to continue independent living in their houses means very important to elders but many factors such as deteriorating health condition, declining economic status, dominant negative viewpoints in community about aging and aged people (e.g. agism) and ever changing policies and practices of health care delivery systems discourage fulfillment of this ideal situation aging in place is a term coined in gerontology to highlight the significance of capacity in elders to live independently in community. It means that elders remain in their residential places as long as possible and receive appropriate health and social services (Kreuger 1990). Aging in place means that instead of removing elders to nursing homes and residential institutions; they would remain in their homes and surroundings undergo modifications to respond to their changing health needs.

Now a day organizations that are responsible for providing community based health care services are faced with a great challenge that is development and implementation of cost benefit service packages for elders which prolong the stay of elders in community and meanwhile ensure that their life quality remains in acceptable levels.

Health systems in many countries implemented varieties of community based programs which specifically have been developed for elders. Home care services, community based health care programs, respite care, day care, senior centers, home maintenance programs, home meal delivery; transport services are some of these programs. (Broadhead, 1983)

Social support is the most important predictive variable that saves the elders from premature mobilization to residential facilities. Studies show that almost in all countries a large part of home health services and social support are provided to elders by their families and informal caregivers. To ensure that crippled and frail elders would receive necessary health and social services cooperation of these families as main resources of informal care giving with local formal authorities is crucial. (US Senate Special Committee on Aging, 1988)

MATERIALS AND METHODS

It should be mentioned that our complete study consists of two consecutive qualitative (to yield a model of community based health care system for Tehranian elders) and quantitative (in order to determine its effectiveness) studies. In this article the qualitative part has been mentioned.

In this stage of study (developing a community based care system model) methodological triangulation was used for collection, analysis and synthesis of relevant data. Triangulation is the use of multiple methods in the study of the same phenomenon. The phenomenon investigated is usually complex, like the human ability to cope with chronic illness, and requires in depth study from a variety of perspectives to capture reality (Morse, 1991).

The three data collection and analysis methods included:

1. Conduction of a comprehensive review of literature
2. ethnography on a number of elders living with their families in an urban area in 13th district of metropolitan city of Tehran, Iran to achieve in depth and valid information regarding their life styles, health beliefs, health needs and their life
situations.

3. obtaining expert (healthcare administrators and policy makers, faculty members of medical and nursing schools, geriatricians, psychiatrics, nurses, social workers... who had acquaintance and expertise in service delivery to elder clients) opinions using Nominal Group Technique.

By combination and synthesis of these findings as building blocks and rudimentary elements we proposed a model for community based health care delivery system for elders in an urban area in Tehran.

As mentioned above in order to collecting data about some relevant issues such as: life styles, health status, health believes, and mode of health system usage by elders dwelling in 13th district of Tehran a micro ethnographic study was conducted. by definition Ethnography is a means of studying groups' life ways or patterns and micro or small scale ethnography is used for study of similar social situations that in this study social situation comprised of: life styles, health believes and health behaviors of some elders living with their families. Behavioristic approach was used in data treatment and interpretation of findings. As we know in this approach researcher is most interested in revealing recurrent patterns in observed behaviors. This approach is deductive and use of this mode of interpretation deviates radically from the intent of other interpretations which rely solely on induction. (Streubert & Carpenter 1999)

The main objective for conduction of ethnographic study was to substantiate the following preselected categories of data:

1. Health believes
2. Health service usage
3. Attitudes and practices about health attainment and maintenance
4. Familial and social relationships
5. Social and recreational activities
6. Daily living activities
7. Attitudes and practices about sleep and rest
8. Nutritional habits
9. Physical exercise
10. Economical and welfare situations
11. Spiritual believes and practices

Because we were interested to collect data about above mentioned categories in both sexes and in both healthy and unhealthy conditions; thus we adopted a purposive sampling method as follows:

- Sampling from elders with good physical and mental health condition (who didn't have been under treatment for acute health conditions and were self reliant in their ADLs) were done using health assessment records in seniors' cultural center of 13th district municipality. Data collection by means of unstructured interviews and participant observation – as two usual data collection methods - was conducted from 18 elders (12 men and 6 women) until data saturation was accomplished.

- Participation of 13 unhealthy elders in study (8 men and 5 women) was accomplished through nursing home care service deliveries and follow ups. if the need for receiving such services deemed no longer necessary but the required data were not acquired an informed consent was obtained about continuation of friendly home visits which in many cases have been welcomed by elders and their families. To adhere to principles of making the ethnographic record (language identification principle, verbatim principle, concrete principle) a large portion of interviews and observations were audio-visually taped. Brief field notes were taken instead of tape-recording if the later one seemed inconvenient or ethically inappropriate from viewpoints of researcher or participants. After each session of data collection and as soon as possible content analysis of documents for identification of recurrent patterns, discovery of cultural themes and taking a cultural inventory were done. To verify the confirmability of findings feedback from participants were obtained and accuracy of conclusions to a great extent was acknowledged by elders.

On the other hand and in order to find some other characteristics and specifications of the system we sought
the opinions and suggestions of experts in this field using Nominal Group Technique. Some justifications for using NGT are as follows:

The Nominal Group Technique is a good way of getting many ideas from a group. It has advantages over the usual committee approach to identifying ideas. Group consensus can be reached faster and everyone has equal opportunity to present their ideas.

NGT sessions have predetermined steps as follows:

1. silent generation of ideas in written
2. recorded round-robin listing of ideas on chart
3. discussion and clarification of each idea on chart
4. preliminary vote on priorities
5. discussion of preliminary vote
6. final vote on priorities (Delbecq A.L et al 1971)

Sampling from experts in elderly health and social services was purposive and researcher with consideration of factors such as: expertise, experiences, motivation and willingness to share ideas and contribute to this study send a notice letter and invitation to participate to NGT sessions.

List of invited experts to panel were as follows:

- Assistant professor of nursing department in university of social welfare and rehabilitation (USWR)
- Psycho- geriatrician
- Hospital manager and assistant professor of USWR
- Deputy of research in USWR
- Deputy of treatment and rehabilitation in USWR
- PhD in sociology
- Representative of family office in deputy of health in ministry of health and medical education
- PhD social worker
- Manager of a comprehensive rehabilitation center
- Manager of comprehensive rehabilitation day center for elders
- Representative from deputy of rehabilitation in Behzisti (Welfare) organization
- Master degree in rehabilitation management
- Head of community-based rehabilitation headquarter in USWR

The main topics for discussion in the panels determined with consideration of relevant literature and consultation with experts in this field.

These topics determined as:

- Target groups of elders
- Composition of health care team in that system
- The most necessary services
- Geographic location
- Time and frequency of service delivery by the system
- Cost of services and how to compensate expenditures
- Manager and coordinator of services and his /her job description
- Cooperation with elders families , volunteers and NGOs
- Evaluation about efficacy of services
- relationship between this propositional system and other preexisting health and social care systems
FINDINGS

TARGET GROUP
- Frail elders (elders around 70 years, with an acute or chronic illness and a decline in ability to perform their ADLs).
- Elders with low socio-economic status with fair, moderate or poor health conditions.

HEALTH CARE TEAM
- Nurse, general practitioner, social worker
- Nutritionist, psychologist, volunteer persons, healthy elders and families
- Referral of elders to specialist physicians and rehabilitation centers. These services will be provided offsite.

IMPORTANT DELIVERABLE SERVICES
- Routine and periodic assessment of elders’ health statuses and filing these health records.
- Teaching, giving information and counseling elders and their families about health, family problems, legal issues and so on.
- Referral of elders to other health, rehabilitation and relief facilities and follow-up (Here the nurse or social worker acts as case or care manager).

GEOGRAPHIC LOCATION
- Initially one or two community-based care centers should be founded as pilot and after troubleshooting and optimization of their services at least one center in every area zones of municipalities.
- The panel recommended that the community-based centers should be located in preexisting health and social service foundations such as hospitals and clinics, behzisti centers, community centers in state sector and likewise in private ones such as non-governmental senior centers and charity centers. Thus the activities of these centers would be very cost benefit.

NAME OF CENTERS (WITH CONSIDERATION OF THEIR PHILOSOPHY, MISSION AND APPROACHES)

The following titles (in order of priority) were recommended for the center:
Development of a Community-based Care System Model for Senior Citizens in Tehran

- seniors’ health house
- community based care center for senior citizens
- institute of health and social services for the worldly-wise

**TIME OF SERVICE DELIVERY (HOUR PER DAY AND DAY PER WEEK)**
- it was recommended that the predicted services should be delivered around the clock / seven days per week for assurance of accessibility of services.
- The panel emphasized on precise scheduling of presence and activities of all workers in these centers based on predetermined tasks (i.e. educational, research, consultations, health assessment and delivery of community based services, staff meetings...) in morning, evening and night working shifts.

**EXPENDITURES AND REVENUES**
- in order to cover part of expenditures; all concerned and beneficiary authorities (i.e. ministry of health, behzisti organization, mayoralty, state and private insurance companies) should support and financially contribute to capital and up keeping expenses.
- The panel suggested the following policies as safeguard measures that community based centers render their services cost effectively:
  - More emphasize on semiskilled, lay and volunteer workers than on specialists and experts; contribution and cooperation of these centers with universities in topics such as: population lab studies and surveys; practicum and field work of social and medical sciences students; acting as suitable environments for service learning; part of services in these centers will be delivered by instructors and faculty members of universities.

**COORDINATION AND MANAGEMENT OF ACTIVITIES**
- Preferably a masters degree public health nurse with due experience in this field would be appointed as manager and coordinator of the center. The head of his/her activities would be: coordination of routine works in the center (educational, research and service delivery); cooperation with authorized program planners and policymakers concerning development, expansion and extension of services in the future.
- The director of the center could be a general practitioner who has spent a short course on geriatric medicine and has practical experience in service delivery to older adults. He/she would coordinate necessary referrals from the center.

**PARTICIPATION OF ELDERS’ FAMILIES, VOLUNTEERS AND NGOs**
- It would be necessary that families and informal care givers be enabled and empowered through education, counseling and substantial and moral supports.
- Creation and fortification of interrelationships with non-governmental organizations and development and implementation of joint programs.

**EVALUATION OF ACTIVITIES IN THE CENTER**
- Examination of elders and their families’ quality of lives before and after service utility.
- Any improvement in informal caregivers and families participation in direct and indirect care giving activities and self sufficiency of elders in their activities of daily living.

Ethnographic themes comprises another part of findings in this study which assisted researcher in needs assessment and thus tailoring services in the health system model accordingly. After content analysis of participant observations and interviews according to qualitative data treatment and analysis principles the following categories emerged that used for fine tuning of activities in the speculative health system.

- Cultural theme revealed in health believes: [Health and physical fitness are gifts from deity and extra territorial and supernatural causes have definitive influences on health status. With increasing age health condition deteriorates irrespective of observing or not observing hygienic guidelines].
- Cultural theme revealed in therapeutic regimes and medication adherence: [ Poor medication adherence...
Discontinuation and changing medication schedules arbitrarily, omission of some items from their medications based on personal beliefs and experiences or suggestions from other lay persons, tendency to continue consumption of some drugs without renewal of recipes.

- Cultural theme revealed in physical and mental health habits: [Lack of appropriate knowledge, attitude and practice about physical and mental health promoting routines].

- Cultural theme revealed in family and social relationships: [Perceived strain and tension in familial relationships, ineffective familial relationships and intentional seclusion].

- Cultural theme revealed in social and recreational activities: [Monotony and unproductivity in leisure times, lost opportunities, no idea and sometimes negative viewpoints about leisure activities].

- Cultural theme revealed in habits and beliefs about sleep and rest time: [Lack of knowledge about value and importance of a refreshing and comfortable sleep and rest specifically in old age, lack of knowledge and practice regarding relaxation techniques and facilitating factors on sleep, perceiving many sleep disorders as normal and inevitable in aging].

- Cultural theme revealed in habits and beliefs about food and nutrition: [Sensitivity and interest about foods and nourishments; believing that good nutrition is the best way for health maintenance and improvement; selection of foods mainly based on palatability and personal preferences instead of consultation with physicians and nutritionists].

- Cultural theme revealed in habits and behaviors about physical activities: [A dominant misconception that physical exercise and sports are luxurious and not important for elders (although some elders verbalized that exercise is beneficial and very important for elders but nearly all of them didn’t regularly engaged in exercises)].

- Cultural theme revealed in welfare and economic status: [A wide discrepancy between elders’ financial and welfare status].

**CONCLUSION AND DISCUSSION**

The main concern of the researcher in this study was to develop a prototypical community-based care system for Tehranian elderly citizens that would fulfill part of unrecognized and unresponded community dwelling elders' health care needs.

To ensure that the main characteristics of care delivery systems would be accomplished in this proposed model (e.g. comprehensiveness, accessibility, quality services, emphasize on preventive and health promotive measures) and fine-tuning the interventions to unique socio-cultural backgrounds of the elders and their families; methodological triangulation including: a) comprehensive relevant literature review; b) attainment of experts’ opinions through nominal group technique and c) conduction of micro ethnography study as an extensive and objective needs assessment approach has been employed.

The preliminary results of employing this care system and examination of expected outcomes such as enhancing quality of life and hope in elders reflects the efficiency of this system, although further complementary studies and particularly cost benefit analysis ones are strongly recommended.
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