

Development of a Community-based Care System Model for Senior Citizens in Tehran

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Abstract:

In recent years a variety of system models for providing community based health care services for the elderly has been envisioned and implemented in the developed countries which meet the special care needs of different groups of elders. In Iran as a developing country, a considerable percentage of old people live in the society need to receive specialized care and 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 and available resources and facilities (financial and human resources); social and cultural issues and characteristics of each groups of elders (healthy elders, frail, home bounds,...) seem to be necessary. At the development phase of the

care model in this study. Allowing methodological triangulation must be considered:

1. Comprehensive review of current and related literature.
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 as well as synthesis of the collected data were employed to develop a community based care system for elders.

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

Key Words:

Health System Model, Community-based care, Senior Citizen.

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 healthier environments and lowering mortality rates. It is estimated that in 2020 one billion of the 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 consequences.

Nowadays, the great challenge of health and social care delivery systems is how to optimize the health status of elders.

Delivery of effective and efficient nursing care to each 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.

Recently the philosophy of 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.

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, congregated housing and hospice care are some of these services.

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 traditional ways:

A) provision of informal home care by elder's relatives and caregivers

B) Signing a contract between families and private home care agencies that in many cases don't have required licensure and primarily with profit incentives deliver their under standards services.

C) Transfer of dependent elder to a nursing home as last resort due to exhaustion of limited resources in family caregivers.

Above mentioned scenarios are in sharp contrast to well established principles and practices of care delivery to elder clients around the world. Today's it is strongly recommended that all needed health services to aging people should be provided in their residential places or community based. The reasons for this emphasize are as follows: 1) it is known that elders are more comfortable and feel in ease while they are in their own homes; and 2) many

studies have shown that community based and home health care cost less than hospital based services.

Community based health and social care services to elders are considered effective and efficient if they have these characteristics: comprehensive, coordinated, accessible, affordable and qualitative . So it is necessary that experts in this field assess the specific health needs of community dwelling elders and coordinate appropriate services and continuously monitor on care delivery programs.

In Iran as a developing country, 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 care 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, frail ,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 and ever changing policies and practices of health care 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 the community. It means that elders remain in their residential places as long as possible and receive appropriate health and social services (7). Aging in place means that instead of moving elders to nursing homes and residential institutions; they would remain in their homes and environment undergo modifications to respond to their changing health needs.

Nowaday 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 have 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.

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.

Materials and methods:

It should be mentioned that our complete study consists of two consecutive qualitative studies (to yield a model of community based health care system for Tehranian elders) and quantitative one (in order to determine its effectiveness) and 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 gathering, 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 (10).

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, needs and life situations. 3-obtaining expert Opinions (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) by 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 collect data about some relevant issues such as: life styles, health status, health beliefs, 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 of individuals' life ways or patterns and micro or small scale ethnography is used for study of similar social situations which that in this study social situation comprised of: life styles, health beliefs and health behaviors of some elders living with their families. These types of study could be accomplished in several weeks to several months. Behavioristic approach was used in data analysis and interpretation of findings. As we know in this approach researcher is most interested in revealing recurrent patterns in observed behavior. This approach is deductive and use of this mode of interpretation deviates radically from the intent of other interpretations which rely solely on induction. (11)

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

- Health beliefs
- Health service usage
- Attitudes and practices about health attainment and maintenance

- Familial and social relationships
- Social and recreational activities
- Daily living activities
- Attitudes and practices about sleep and rest
- Nutritional habits
- Physical exercise
- Economical and welfare situations
- Spiritual beliefs 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:

a) Sampling from elders with good physical and mental health condition (who didn't have been involved in specific disabling conditions Health and were self reliant in their ADLs) were done using health assessment records in seniors' cultural center of 13th district municipality located in Khayam Park. 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.

b) Participation of other 13 unhealthy elders in study (8 men and 5 women) was accomplished through nursing home care service delivery 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 was welcomed by elders and their families. To adhere to principles of making the ethnographic record (language identifica-

tion 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. Content analysis of records was a cyclic and repetitive procedure and after reading and rereading and taking memos; cultural themes which reflected beliefs, habits and behaviors of elders were revealed. Similar themes aggregated and inscribed in the preselected categories of data.

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 was sought. Some justifications for using NGT are as follows:

Research in group dynamics indicates that more ideas are expressed by individuals working alone but in a group environment than by individuals engaged in a formal group discussion. The Nominal Group Technique is a good way of getting many ideas from a group. It has advantages over the usual commit-

tee approach for identifying ideas. Group consensus can be reached faster and everyone has equal opportunity to present their ideas.

Some benefits of employing NGT are:

- Balances participation across members and influence of individuals on each other,
- Judgments of a variety of people with varied talents, knowledge and skills will be used together,
- To use different processes for different phases of creative problem solving ,
- To reduce the errors in aggregating individual judgments into group decisions
- It is especially useful for problem identification, problem-solving and program planning.

NGT sessions have predetermined steps as follows:

- a) silent generation of ideas in written
- b) recorded round-robin listing of ideas on chart
- c) discussion and clarification of each idea on chart
- d) preliminary vote on priorities
- e) discussion of preliminary vote
- f) final vote on priorities

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 Sciences (USWR)

- Psycho- geriatrician (faculty member of USWRS)
- Hospital manager and assistant professor of USWRS
- Deputy of research in USWRS
- Deputy of treatment and rehabilitation in USWRS
- PhD in clinical psychology, faculty member of USWRS
- Speech therapist with master degree, faculty member of USWRS
- Occupational therapist with master degree, faculty member of USWRS
- Associate professor, Ph.D in sociology
- Representative of family office in deputy of health in Ministry of Health and Medical Education
- Administrator of seniors' community center (affiliated with artistic-cultural organization of 13th district municipality)
- PhD in social work, faculty member of USWRS
- Representative from deputy of Rehabilitation in Welfare Organization (elders section)
- Head of community-based rehabilitation headquarter in USWRS

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

These topics were determined as:

- Target groups or elders who would be most benefit from implementation of community-based health system.
- Composition of health care team

in that system

- The most necessary services
- Geographic location (in Tehran)
- 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
- Any relationship between this propositional system and other pre-existing health and social care systems in society
- Expression of any other idea, question and view point related to this subject

Findings:

Target group determined as:

- a) Frail elders who are literally elders around 70 years, with an acute or chronic illness and a decline in ability to perform their ADLs.
- b) Debilitated elders restricted to their homes (homebound elders)
- c) Elders with low socio-economic status with fair , moderate or poor health condition ; because this group usually are very prone to many health problems

Health care team:

- a) General practitioner, nurse, social worker
- b) Nutritionist, psychologist, volunteer lay persons, healthy elders and families
- c) Experts with B.S degrees in physical education; hygiene and public health specialties; art, culture and social skills instructors who will

work part time and as needed on a scheduled basis.

d) Referral of elders to specialist physicians and rehabilitation centers .these services will be provided off-site.

Important deliverable services:

- a) Routine and periodic assessment of elders' health statuses and filing health records.
- b) Teaching, giving information and counseling elders and their families about health, family problems, legal issues and so on.
- c) Referral of elders to other health, rehabilitation and relief facilities and follow-up
(Here the nurse or social worker acts as case care manager)
- d) Discharge planning and follow-up services for hospitalized elders.

Geographic location (in Tehran):

a) initially one or two community - based care center should be founded as pilot and after troubleshooting and optimization of their services at least in every area zones of municipalities and then based on perceived needs of citizens and reception of services from these centers.

b) The panel predominately recommends that the community based centers should be located in pre-existing health and social service foundations such as hospitals and clinics, welfare 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 effective.

Name of centers (with consideration of their philosophy, mission and

approaches):

The following titles (in order of priority) were recommended for the center:

- a) seniors' health house
- b) community based care center for senior citizens
- c) institute of health and social services for the elders.

Time of service delivery (hour per day and day per week):

a) it was recommended that the predicted services should be delivered around the clock/seven days per week for assurance of accessibility of services.

b) 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:

a) in order to cover part of expenditures; all concerned and beneficiary authorities (i.e. ministry of health, welfare organization, municipalities, state and private insurance companies) should support and financially contribute to capital and up keeping expenses.

b) 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:

a) Preferably a masters degree public health nurse with due experience in this field would be appointed as manager and coordinator of the center. His/her responsibility 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.

b) It was recommended that a nurse with master's degree, work experience and a short course certificate in gerontology nursing should be act as coordinator and internal manager of the center. The most important responsibilities of the manager would be: attendance to ongoing activities in the center, supporting staff members to render an interdisciplinary team approach, safeguarding that programs and planned activities are implemented correctly and monitoring expected outcomes and quality of services with suitable means and in proper intervals.

c) 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:

a) For accomplishment of this goal it would be necessary that families and informal care givers be enabled and empowered through education, counseling and substantial and moral supports.

b) Creation and fortification of interrelationships with non- governmental organizations and development and implementation of joint programs.

c) Making connections with any charitable, trustees and private nursing homes and long term care facilities.

Evaluation of activities in the center:

a) Examination of elders and their families' quality of lives before and after service utility.

b) Studying the effectiveness of activities from aspects of elders and families satisfaction; improvement of their hope to life and enhancement of general health index.

c) 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 activity 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 can be used for fine

tuning of activities in the speculative health system.

- Cultural theme revealed in health believes category:

{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 category:

{*Poor medication adherence, discontinuation and changing medication schedules arbitrarily, omission of some items from their medications based on personal believes 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 category:

{*Lack of appropriate knowledge, attitude and practice about physical and mental health promoting routines*}.

- Cultural theme revealed in family and social relationships category:

{*Perceived strain and tension in familial relationships, ineffective familial relationships and intentional seclusion*}.

Cultural theme revealed in social and recreational activities category:

{*Monotony and unproductivity in leisure times, lost opportunities, no idea and sometimes negative viewpoints about leisure activities*}.

- Cultural theme revealed in habits

Table – 1: Main concepts and elements revealed in each methodology

Literature Review	NGT	Ethnography
Systems Theory	Frail elders	Health Believes
Micro – Mini and Macro Systems	Nurse(public health)	Health as Gift
Holistic Approach	Physicians(general practitioners)	Inevitable deterioration in health condition
Comprehensive Assessment	Social worker	Poor therapeutic regimes & Medication adherence
Newman's health care systems model	Nutritionist	Lack of appropriate knowledge, attitude and practice about health promotion
Anderson & McFarlane's Community as Partner Model	Psychologist	Perceived strain and tension in familial relationships, ineffective family relationships and intentional seclusion
Interdisciplinary Collaboration Model	Volunteers	Monotony and unproductivity in leisure times
Medical Acute Care Model	Elders and families	Perceiving many sleep disorders as normal
Transcultural Nursing	Health Assessment (Health) Education (Health)Consultation (Health) Research Referrals	Good nourishment is good health
Case Management (Care Management)	Case management	Self prescribed regimens
Standards of Gerontology Nursing Practice	Follow-up and discharge planning	Sport is a luxury
National Council of Aging	Integration	No regular engagement in physical activities
Frail Older Adult	Welfare Organization	Financial- welfare status mismatching
Aging in Place	Community Center	
Multi purpose Centers	Day Clinic	
Municipality	Seniors' Club	
Anticipatory Care giving	Seniors Health Center	
Preventive Care giving	Ministry of Health	
Supervisory Care giving	Interdisciplinary Collaboration	
Instrumental Care giving	Quality of Care(Satisfaction, Hope , Wellbeing)	
District Nurse	Enabling and Empowering	
Visiting Nurse	Networking	
Goal Keeper		
Quality of Care		
Quality of Life		

and believes about sleep and rest time category:

{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 believes about food and nutrition category:

{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 believes and behaviors about physical activities category:

{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 category:

{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 prototype 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 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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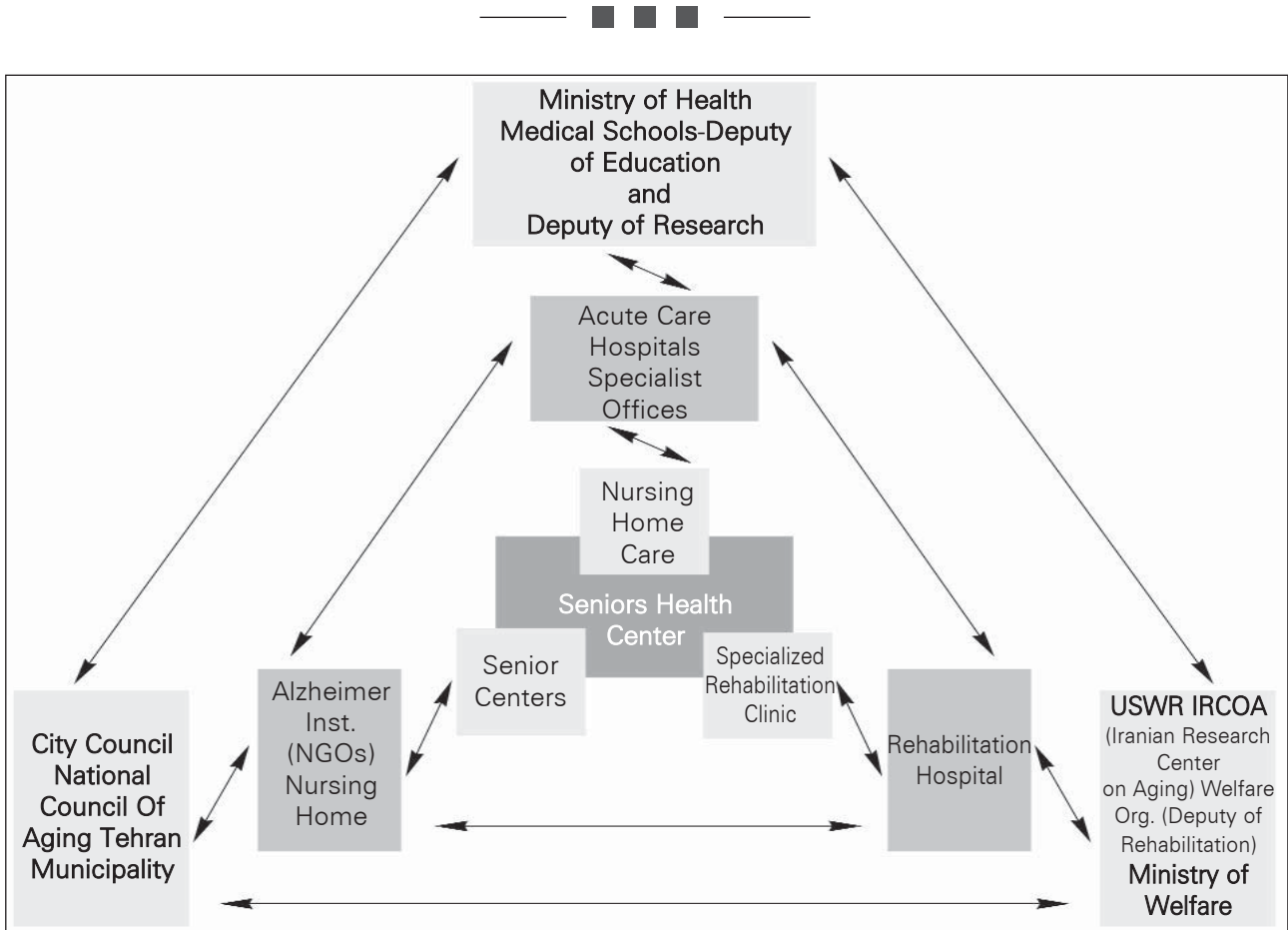


Diagram 1: A hypothetical representation of interconnections between building blocks in community-based social-health care system model

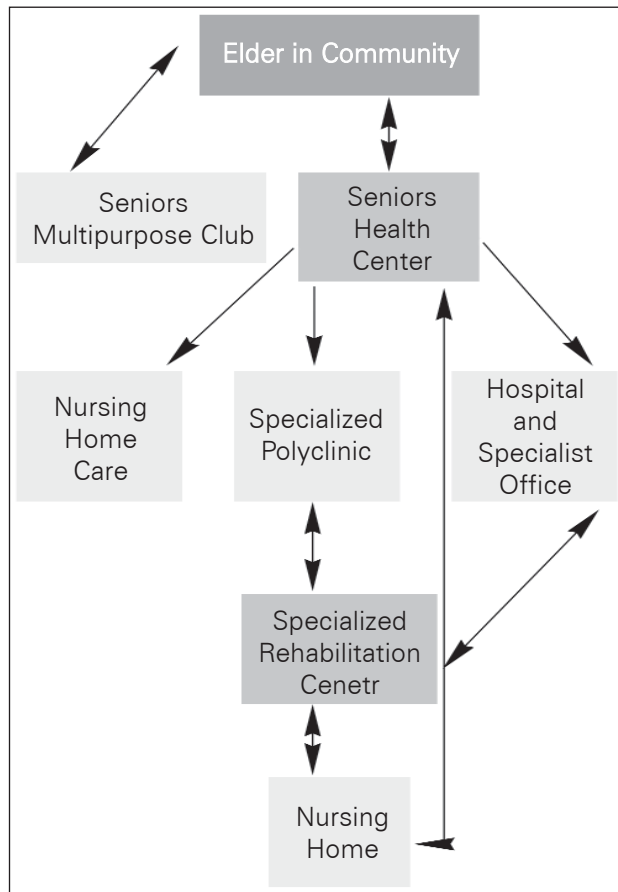


Diagram 2: The proposed algorithm For community-based social-health care system model

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