The Composition Of Old Age Homes in South Africa in Relation to the Residents and Nursing Personnel

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Abstract
This research project is the first phase of a larger study aimed at describing and exploring the cost-effective utilisation of nursing personnel in old age homes in South Africa. The aim in the first phase was to describe the composition of the residents and nursing personnel of old age homes in South Africa. An exploratory and descriptive survey was conducted and the data was collected by means of a questionnaire. The questionnaire also included data on the financial implications of utilising professional nursing personnel to manage the care of the frail residents/older persons in old age homes in South Africa. The questionnaires were mailed to 612 old age homes published in the Hospital and Nursing Yearbook of 1997 (100% sample). A total of 145 (23.69%) questionnaires were returned and included in the descriptive data analysis. The residents are mainly female (77%), older than 85 years of age, belong to the white race group (83.74%) and are highly dependent on nursing care and supervision (69.7%). Old age homes are mainly managed/controlled by welfare organisations and lay health care workers are utilised to a large extent (42.22% of the nursing workforce) to render nursing care to the frail residents. The cost-effective utilisation of nursing personnel (registered and enrolled), as well as the utilisation of lay health workers in old age homes, needs to be critically examined.

Introduction
Ageing is a world wide phenomenon, which makes heavy demands on a variety of service delivering action to persons who are not anymore economically viable. The 1991 census indicated that 4.7% of the total South African population (approximately 1.8 million people) in South Africa are 65 years and older. It is a generally accepted policy that all older people / elderly should remain in the community as long as possible with the aid of home care services and other support to the family. Unfortunately these support services are still grossly under developed and not available in most areas of South Africa. This situation puts a strain on the care of the elderly in the community. It is estimated that 2.5% of the South African older population will be in need of institutional (old age home) care, even if all the mentioned support systems are in place, because they are frail and / or destitute (Van den Heever, 1998; Erasmus 1995:176).

Old age homes came into existence in South Africa within the social work domain because of various social problems including loneliness, economic and housing problems, deteriorating mobility of the older persons and lack of family and other support systems for them in the community. Welfare and church organisations, mainly from the white population groups, developed institutional care within their own cultural background to take care of their older people. The population of older people in old age homes changed over the years as the residents became older, more frail and in need of nursing care.

The White Paper for Social Welfare (South Africa, 1997) and the Aged Persons Amendment Act (South Africa, Act No. 100 of 1998) stipulates that only frail older persons may be admitted to subsidised beds in old age homes. The nursing care of older persons in old age homes differs from the hospital-based, curative model of health care where the emphasis is placed on short term care and early discharge. Gerontology and geriatrics are considered part of community nursing because of the long term involvement of nurse and patient and the holistic nature of the relationship. The old age home becomes the "home" of the frail older person as his/her stay is extended. The nursing care of the frail in old age homes became increasingly a health service management problem within a social work milieu. Both the Department of Welfare and the Department of Health have direct interest in the delivering of cost-effective services to the frail in old age homes. The Department of Welfare subsidises the operational budget of old age homes and formulates...
which the results are not discussed in this article).

A pilot study was conducted on five old age homes to test and refine the questionnaire as well as to confirm the face validity of the instrument. No problems were indicated during the pilot study and the questionnaire was also discussed with experts in the field for additional comments. The questionnaire was translated in both Afrikaans and English and then prepared to be mailed to the managers of the old age homes. Due to the basic nature of the data required, statistical reliability and validity of the questionnaire was not determined.

The target population for the study focuses on registered old age homes in all nine provinces of South Africa. The published list of names of old age homes in the *Hospital and Nursing Yearbook 1997*, which was compiled by the National Council for the Aged, was regarded as the population for this study. Address lists were also asked from various provincial offices of the Department of Welfare as well as from welfare organisations. It was clear during this phase that there is a lack of reliable address lists due to the closure of many old age homes. It also became apparent that many existing old age homes were not listed on the national database. The researcher therefore decided to utilise the total available population as the sample (100%). The number and distribution of old age homes in South Africa is shown in table one, including the sample realisation.

A total of 612 questionnaires were mailed to the managers of old age homes during the first week in February 1998, with the request of completion and return within six weeks. Questionnaires were coded to indicate the province and registered old age home without any reference to the name of the old age home. A total of 145 (23.69%) completed questionnaires were received up to the end of May 1998. These questionnaires were representative of the nine provinces and type of management/control, and was therefore accepted as the sample used in this study. A relative smaller sample was also acceptable as no correlational statistical analysis were planned. An accompanying letter, addressed to the management board, was included to ask permission for completing the questionnaire and to give information regarding the research project. The original population list did not give any indication of the controlling organisation, therefore the managers were requested to gain permission from the relevant controlling body before completing the questionnaire. Where this information came to the knowledge of the researcher, the specific organisations were addressed to ask permission for the old age home's manager to participate. Only one welfare organisation reacted negatively towards this request. Participating old age homes generally reacted positively regarding the research. A few managers (N=32) returned the questionnaires without completing the section on finances as they regarded this as confidential and some (N=6) returned the questionnaires back without completing them because they were of the opinion that the information requested on finances was confidential.

**Results**

Completed questionnaires were coded and processed by two independent statisticians on the STAT5 and the SPSS computer software programmes for statistical analysis. Descriptive analysis was conducted without any complex inferences or manipulation of the data. The relevant results relate to the organisations in control of old age homes, the nature and scope of management, the size (number of beds) of the old age home, the dependency levels of residents, age distribution and cultural background of the residents. The nature and scope of the nursing personnel in terms of their registration or enrolment level, was also determined.

**Organisations in control of old age homes**

It seems that Welfare organisations (NGO's) are mainly (44.06%) involved in the welfare and care of frail older people in old age homes (N=63). Church organisations control a quarter (25.17%) of the old age homes (N=36), while societies for the aged (N=19; 13.29%) and private enterprises (N=18; 12.59%) have almost equal interests in old age homes. Only nine (5%) of the respondents indicated that the old age home is run by other organisations, like family enterprises or utility companies. Welfare and church organisations are involved in a variety of services, whereas the societies for the aged are solely focused on the older people. The societies for the older persons aim at keeping them independent in the community and are perhaps for this reason not the most pertinent controlling bodies of old age homes. The small percentage of private enterprises involved with old age homes (frail care) confirms the view that frail care is a very costly service which limits profit making. The lack of compensation from medical schemes for long term care out of hospital, may possibly also influence the limited interest of private enterprises in frail care. Some private old age homes indicated that the residents of retirement villages associated with the old age home (frail care unit) are responsible for cross subsidising the old age home because of the assurance that they will receive first priority to be admitted to the old age home should they become infirm.

Welfare and church organisations, jointly in control of 69.23% of old age homes (N=99) in this study, are receiving funds from government subsidies, fundraising in the community and limited payments by the residents. It seems as if these organisations were the hardest hit by the cut in government subsidies to old age homes. It became clear from feedback received from old age homes who returned incomplete questionnaires, that the restricted funds is the reason why ten of the old age homes opted to close down, while 11 others converted the old age homes to assisted living arrangements without nursing care or supervision.

**Managers of old age homes**

Professional nurses were the managers at most (N=62) of the old age homes (49%). This trend was noticed by different organisations in control of old age homes. Although no statistical significant differences were noticed (p-value =0.0474), it seems as if ministers of religion and social workers were managers in old age homes where most of the residents were more self-caring. Evidence was found that professional registered nurses were appointed as managers in larger old age homes where the residents were frail and in need of nursing care.

**Size of the old age homes**

Just more than half (N=74) of the old age homes (51%) had less than 70 registered beds. The smallest old age home had 17 beds and the largest had 500 registered beds. The largest percentage (30%) of old age homes (N=44) had between 45-70 registered beds and only 10% had more than 150 beds (N=14). Eighteen respondents indicated that they had no beds registered for sub-economical residents and did therefore not receive any funds in the form of subsidies from the government. On the other hand 39 (26.9%) respondents indicated that all their registered beds were used for poor older people and that they received a government subsidy for these residents. The number of vacant beds was small (0.06% of the total of 12208 registered sub-economical and private beds). Eighty six old age homes had no vacant beds. From enquiries at old age homes it seems as if most of them had long waiting lists and
that vacant beds were filled very quickly.

Dependency levels of residents/older persons

The resident's physical, mental and social situation is assessed to determine the level of care needed. The support systems available to the older persons in the community who are in need of help to fulfill the activities of daily living (eating, dressing, personal hygiene, bathing, toileting and mobility), as well as the need for medical and nursing care, are taken into consideration to determine the level of dependency and the necessity for admission to an old age home (Department of Health and Welfare, 1987:30; Van den Heever 1998). The levels of dependency are grouped into the following three groups: group one refers to the group on self care, group two needs a minimum of nine hours of nursing care per week and the third group requires full time nursing care for 24 hours of the day. Since April 1997 only group three older people are admitted to old age homes and the remaining two groups who were residents in old age homes are to be phased out in a matter of time (South Africa, White Paper, 1997). Figure one displays the graphic presentation of the dependency levels of residents of old age homes.

A small percentage (8.4%) of the residents (N=959) are self-caring (group one). The majority of older people (N=7929) in old age homes (69.7%) are frail and categorised as group three residents. Increasing frailty of the residents of old age homes leads to more complicated care delivery which becomes more labour intensive as far as nursing care is concerned. Nursing care plans are adapted to aid the older person with impaired functions to fulfill the activities of daily living. Wicht, Prinsloo, Skibbe, Lombard and Lombard (1989:1) found that the frail older person on average suffers from three different chronic diseases, but up to nine pathological conditions can be found in one individual. This implies that large quantities of medication are administered to the older people in old age homes and that more specialised nursing responsibilities are placed on the caregivers.

Gender of residents in old age homes

The residents are mainly (77%) female (N=8273). Although the male residents are in the minority (N=1948), they represent never the less almost a quarter (23%) of the residents and may need special consideration as far as gender sensitive care is concerned. From this study it was evident that old age homes with residents mainly from the traditional disadvantaged population groups (mainly Black) had a larger percentage of male residents. This finding correlates with the findings of Ferreira, Moller, Prinsloo and Gillis (1992:33) that Indian, Coloured and Black population groups consist of slightly fewer females in the age group older than 80 years compared to the White population. From conversations with social workers of the Department of Welfare, it appears that the older women in traditional black families are easier integrated within the family life and that they are sharing responsibilities within the family. The black older men are not as easily accommodated by the family when they become frail and in need of more care than the family is able to provide. Admission to an old age home becomes a reality to these older men if they become incontinent and very frail.

Age distribution of residents in old age homes

A high age does not necessarily imply frailty. The physiological changes associated with ageing, however, may cause an increase in chronic diseases and the accompanied need for medical and nursing assessment and monitoring (Wicht et al 1989:1). The age distribution of the residents in old age homes is displayed in figure two.

From figure two it is obvious that the residents of old age homes are very old. Advanced frailty and the presence of chronic diseases already necessitated the admission to old age homes and categorising most (N=7929) of the residents (69.7%) as group three residents.

Cultural background of residents and nursing personnel

The care of the older people in old age homes takes place in a particular culture which had been the collective result of the cultural background of residents, management and personnel. The nursing personnel moves in and out of this "acquired culture" within the specific old age home, but the residents who are already frail, are in most cases...
isolated from their own population and their cultural heritage. The old age home becomes the permanent “home” of the residents. In this study the home languages and population group of the residents and nursing personnel were identified with the aim to explore the possible relevance of these factors on the cost-effective utilisation of nursing personnel in old age homes.

According to Brubaker (1996:28) communication between nursing personnel and residents are of great importance to assess the individual’s needs. The older person wants to be informed about the daily development and routines related to his/her care (Brubacher 1996:26). Without sufficient communication between the caregiver and the resident it may be possible that the resident’s input and contribution towards individualised care will be limited or ignored. The resident then becomes a passive receiver of institutionalised care without the right and privilege of personal care aimed at meeting real individual needs as communicated by the resident to the caregiver. Inability to communicate leads to semantic confusion and misunderstanding. The caregiver then tends to come to her/his own conclusion about the needs of the frail resident and more often only focus on the obvious physical needs. The older person as a whole person with bio-physical-mental-social needs lack the necessary holistic care. Attention is then paid to care needs which had been formulated unilaterally by the personnel without taking the resident’s wishes and preferences into consideration.

It was found in this study that the home language of the nursing personnel and the residents differed considerably. The same trend was noticed regarding the population groups of (see table two). The residents were predominantly white (N=8545; 83.74%) and Afrikaans speaking (N= 6496; 62.35%), while just more than a quarter (28.41%) of nursing personnel (N=1160) were white and 38.63% spoke Afrikaans as home language (N= 1594). More than half (51.11%) of the nursing personnel (N=2087) were black and 49.31% (N=2024) used an indigenous South African language.

Table 2: The home language and population groups of residents and nursing personnel in old age homes (N = 140 Old Age Homes)

<table>
<thead>
<tr>
<th>HOME LANGUAGES</th>
<th>N</th>
<th>%</th>
<th>POPULATION GROUPS</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>3090</td>
<td>30.26</td>
<td>Black</td>
<td>611</td>
<td>5.98</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>6490</td>
<td>63.55</td>
<td>White</td>
<td>8547</td>
<td>83.39</td>
</tr>
<tr>
<td>Indigenous language</td>
<td>343</td>
<td>3.36</td>
<td>Coloured</td>
<td>637</td>
<td>6.24</td>
</tr>
<tr>
<td>European language</td>
<td>269</td>
<td>2.63</td>
<td>Indian</td>
<td>282</td>
<td>2.76</td>
</tr>
<tr>
<td>Other language</td>
<td>20</td>
<td>0.20</td>
<td>Other population</td>
<td>135</td>
<td>1.32</td>
</tr>
<tr>
<td>Total</td>
<td>10212</td>
<td>100.00</td>
<td>Total</td>
<td>10212</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Growing pressure is placed on old age homes to transform and integrate the residents of old age homes “to reflect broadly the race composition of South Africa” (South Africa, Aged Persons Amendment Act 1998:6). It seems as if integration/transformation took place with regard to the personnel establishment of old age homes but not in terms of the residents.
The composition of nursing personnel establishment in old age homes

Nursing personnel are appointed in old age homes to take care of all the needs of the frail residents. The correct skills mix is necessary to ensure that quality care and a cost-effective service is delivered. Five categories of nursing care personnel can be differentiated in the old age homes if the levels of training and the legal scope of practice of nurses in South Africa are taken into consideration. All the categories, except the lay workers, received training according to regulations of the South African Nursing Council (SANC). These categories are as follows:

- **Registered nurses (Sisters):** completed a four-year training at university degree or diploma level;
- **Enrolled nurses (staff nurses):** completed a two-year certificate training at a nursing college and hospital;
- **Enrolled auxiliary nurses:** completed 44 weeks training at a hospital or old age home registered as a training school with the SANC;
- **Student auxiliary nurses:** busy training at an old age home which is registered as a training school with the SANC. Twenty-three (15,86%) respondents indicated that they train auxiliary nurses at their old age home;
- **Lay workers (unregulated geriatric caregivers):** no formal training is expected for this category and there is no regulated scope of practice for this category.

The composition of nursing personnel (see figure three) in old age homes should provide an adequate skills mix of personnel who can take care of the medical, nursing and basic care needs of the residents in old age homes, taking into consideration that only frail residents will be cared for in old age homes in the near future.

The analysed data indicated that a large percentage (42,22%) of the nursing personnel establishment are geriatric caregivers (N= 1833) who received no formal training and whose practice is not controlled by any professional body - this is an unregulated group of caregivers. Geriatric caregivers are lay workers who perform basic care related to the activities of daily living under the supervision of a trained nurse (registered or enrolled). Old age homes are heavily dependent on this category of worker who normally works the same shifts as the registered or enrolled nursing personnel and are paid an average salary of less than R10000-00 per month. Lay workers need more supervision and continuous guidance and on-the-job training because of their low level of education (Patchner & Balgopal 1993:107).

Almost a third (31,11%) of the nursing personnel (N= 1351) are enrolled auxiliary nurses. This category had received 44 weeks of training (which must be completed within one year). Enrolled auxiliary nurses may only practise under the direct or indirect supervision of registered nurses (SANC regulation No. R 387 of 1983 as amended by R2490 of 1990). Twenty three of the respondents (15,86%) indicated that they train auxiliary nurses. Registered nurses employed by these old age homes are responsible for the training of these student auxiliary nurses.

The availability of registered professional nurses with an interest in gerontology and geriatrics is a world wide problem (Brower 1981:296; Glajchen 1999:160).

It appears that registered nurses compose 15,13% of the nursing personnel (N= 657) in old age homes. This implies that the ratio of registered nurse to the rest of the nursing personnel is 1:17,82. The shortage of registered nurses in old age homes could have adverse implications for the quality care of frail residents. Registered nurses manage the care process, supervise the caregivers and enrolled nursing personnel and are responsible for the continuous training of the personnel.

It is quite clear that registered nurses are crucial in the quality of the care of frail residents of old age homes. The circular no 7 of 1994 (Department of Welfare, Administration: House of Assembly 1994:3) recommended that registered nurses should compose 33% of the nursing personnel in old age homes where 75% of the residents were group three (frail) and that 50% of the rest of the nursing personnel could be lay workers.

It appears that the overall serious shortage of registered nurses in old age homes is critical at some old age homes. Five (0,03%) old age homes indicated that they had no professional registered nurse on the staff establishment although they took care of frail older persons. Sixteen old age homes (11,03%) had only one registered nurse and 30 (20,69%) had two registered nurses on the personnel establishment to take care of a 24-hour based frail care service. The average ratio registered nurse to registered beds in this study was 1:23,71. The median was 1:20 and 3,6% of the respondents indicated this ratio. A Chi-square analysis on the p-value of 0,05 indicated no significant differences amongst the nine provinces on this item. Small differences were demonstrated amongst the five service organisations where private organisations had the lowest ratio (1:11,8) and church organisations the highest (1:18,2) in old age homes where both group two and three residents were cared for. The accepted norm is a ratio of 1:15 (registered Nurses to frail residents) which was the case before 1994 (Du Rand, 1993:13).

It was also evident that 43,3% of the old age homes (N=63) admitted older people from all population groups, although the majority of residents (N=8545) were from one particular population group and corresponding language orientation. In the Western Cape province more than half (58,97%) of the old age homes (N= 23) admitted older people from all population groups in South Africa. At the 14 old age homes where only Coloured, Indian and Black residents are accommodated, the population groups and language orientation of the nursing personnel and residents corresponded.
Conclusions
The following concluding statements are made:
• The realisation sample of 145 (24%) respondents (managers of old age homes) could be seen as representative of the 612 old age homes in South Africa as published in the Hospital and Nursing Yearbook 1997.
• The existing database of the Department of Welfare regarding registered old age homes in South Africa is outdated.
• The majority of old age homes are located in Gauteng, Western Province, Free state and Kwazulu Natal.
• Welfare organisations are in control of most (44,06%) of the old age homes in South Africa.
• Most (42,66%) of the managers of old age homes are registered professional nurses.
• Residents of old age homes are highly dependent on nursing supervision and care as 69,7% are classified as group three frail residents/older persons.
• Most (77%) of the residents are female. The males are, however, a significant group (24%) who need special gender-sensitive care.
• The residents of old age homes are very old as 41,9% are older than 85 years.
• Communication problems between the residents and nursing personnel could develop due to different home language orientations.
• Most of the residents in old age homes in South Africa at the time of the study were white (83,74%) whilst more than half (51,11%) of the nursing personnel were black.
• A serious shortage of registered professional nurses prevails in old age homes resulting in an unacceptable low ratio of registered nurse in relation to the residents and registered nurse in relation to the other nursing personnel (enrolled category/lay health worker).
• Lay workers (unregulated geriatric caregivers) with no formal nursing training, constitutes 42,22% of the total nursing workforce in old age homes in South Africa which is unacceptably high for frail care.

* The affordability of registered professional nurses in old age homes should be investigated.
* The responsibilities of registered professional nurses in old age homes should be appraised to justify the cost implications.
* Guidelines for the cost-effective utilisation of registered professional nurses in old age homes should be formulated.
* Communication skills and cultural sensitivity should be included in the training courses of nursing personnel in old age homes.

Concluding Remarks
A complete and reliable database is necessary for the development and formulation of policy. The database provided in this study could contribute significantly to the development of national policy regarding the care of the frail older people, not only in South Africa, but also in the whole of Africa. The process of transformation in relation to the composition of old age homes in South Africa, needs to be carefully monitored. Due to the high costs of frail institutionalised care, the empowerment of the community in taking care of their elderly, in a cultural sensitive manner, should also receive attention. The rights of the elderly must, however, also be respected.

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