

A Restraint Reduction Program in a Local Old Age Home

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Abstract The aim of this pilot study was to investigate whether a staff educational program and the establishment of a restraint review committee would be effective in reducing restraint use in a private old age home (Home). A single group quasi-experimental design was adopted. An in-service education program on the use of restraints and restraint alternatives was provided to nurses and other unregulated health workers. The Restraint Review Committee (RRC) comprised the Home's manager and physiotherapist, three unit leaders/nurses, and members of the research team. They met weekly to develop a restraint reduction policy and to review each resident who needed restraints. Of 106 residents, 90 subjects were recruited into the study. Thirteen residents in the sample had restraints used on them. This number was not reduced in the post-intervention period, however the form of restraint and its duration were reduced in some cases. Both the statistical findings and RRC observations demonstrated that the use of physical restraints was not widespread in the Home and that its use had been, for the most part, appropriate. Contrary to what is commonly found in the literature, the status of being a faller in the Home did not render the resident more likely to be restrained. Findings also highlighted the importance of family involvement in restraint reduction.

In the literature, substantial evidence attests that the use of physical restraint is associated with an increased risk of morbidity and mortality in long-term care settings (Blakelee, Goldman, Papougenis, & Torell, 1991; Quinn, 1993). The enactment of the Omnibus Act in the United States (US) in 1987, which mandated the use of restraint permissible only under a strict protocol, has led to a significant reduction of restraint rates in their long-term care settings (Hartz & Splain, 1997). Also since the implementation of nursing home reform provisions, the prevalence of restraint use in the US has decreased from an estimated 41% nationwide to about 20% (Guttman, Altman, & Karlan, 1999). While there has been fervent research activity in this area in the US, local interest on the topic has been low. Few researchers and clinicians in Hong Kong have conducted studies in relation to restraint use. Consequently, there is limited

information concerning the prevalence rates of restraint use in local facilities. This study was an attempt to investigate whether a restraint reduction program would be effective in a private old age home (Home).

LITERATURE REVIEW

Reported consequences associated with restraint use included pressure ulcers, constipation and fecal impaction, incontinence, declines in mobility and other aspects of physical functioning; and sometimes death (Phillips, Hawes, & Fries, 1993). Other complications reported included a loss of bone mass, muscle tone and the ability to walk independently (Moss & La Puma, 1991), cardiopulmonary deconditioning, and increased agitation and confusion had also been reported (Kane, Williams, Williams, & Kane, 1993). It needs to be mentioned that serious injuries do

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not increase with restraint reduction. Contrary to popular belief, Capezuti and associates (1996) found that restraints were not associated with a significantly lowered risk of falls or injuries in residents. Physical restraints do not prevent injuries (Dunbar, Neufeld, Libow, Cohen, & Foley, 1997; Ejaz, Folmar, Kaufmann, Rose & Goldman, 1994).

The psychological harm associated with restraint is also significant. Physical restraint may contribute to sensory deprivation, disorganized behavior, loss of self-image and dependency (Blakeslee, 1988; Evans & Strumpf, 1990). Restraint may also increase confusion or precipitate regressive behavior and withdrawal. Tinetti and colleagues (1992) found that agitation is often increased, so is anger and demoralization (Moss & LaPuma, 1991). Sullivan-Marx (1995) found withdrawal, regression, denial, and cooperating with restraint application to be possible responses to routine restraint in older adults. The lack of autonomy, limits on freedom of movement, and restriction in activity that restraints entail have daily consequences for the quality of the lives of older people living in nursing homes (Phillips, Hawes & Fries, 1993). Both nursing home residents and hospital patients have described the experience of being in restraints as emotionally devastating, frightening, and humiliating (Strumpf & Evans, 1988; Dodds, 1996).

Caregivers, however, have often underestimated the detrimental effects of restraints. The respondents in Suen's (1999) local study were found to have under-rated the physical and psychological effects of restraints applied to clients. Chien's (1999) study in the psychogeriatric units in a local mental hospital revealed that most interviewed nurses justified their use of restraint on the grounds of patient safety, and were insensitive to the patients' self-determination right. Another local study (Lee, Chan, Tam & Yeung, 1999) on nurses' perception of use of physical restraints on elderly patients found that although nurses in general had mixed feelings about the use of physical restraints, rarely would they question this kind of practice. The study further noted that the interviewees' knowledge about the consequences and alternatives to the use of

restraint was limited. Often, physical safety and the protection of residents have assumed priority over the psychological, emotional or moral implications of restraint use (Brower, 1991; Quinn, 1993).

Education has been regarded as the key component in reducing the use of physical restraint (Crux, Abdul-Hamid, & Heater, 1997; Johnson, & Beneda, 1999, Winston, Morelli, Bramble, Friday, & Sanders, 1999). Staff education is considered crucial because numerous studies reported staff's lack of knowledge of alternatives (Evans, Strumpf, & Williams, 1991) and ignorance of negative consequences of restraint as a result of restricted mobility (Evans & Strumpf, 1990; MacPherson, Lofgren, Granieri, & Myllenbeck, 1990). Dunbar and colleagues (Dunbar, Neufeld, White, & Libow, 1996) reported an educational program that contributed to a 90 % reduction in the use of physical restraints in 16 randomly selected nursing homes over a 2-year period. Suen's (1999) local study reported that most nurses being interviewed believe that good alternatives to restraints do not exist. Therefore, an educational program targeted at clarifying these misconceptions among nurses would help to cultivate a restraint-free environment.

Those studies that reported continual success in reducing the use of restraint invariably also have another feature – administrative support in the presence of a restraint review committee (RRC). Many of these teams are composed of health professionals from various disciplines as well as representatives from the management. In many instances, a RRC was created initially to develop policies and guidelines, to monitor the use of restraint in individuals, and to promote continual efforts in restraint reduction within health facilities. Studies that reported success in reducing the use of physical restraint adopt a multi-disciplinary approach and had support from management to ensure continual development of the work of the RRC (Kramer, 1994; Levine, Marchello, & Totolos, 1995). These studies highlight the effectiveness of restraint reduction programs in improving the quality of life of older people in terms of dignity and the freedom of movement in old age homes.

The literature informs us that staff education, continual inter-disciplinary efforts, as well as management input, will lead to successful reduction of restraint use. The limited number of local studies on the knowledge, attitudes and beliefs of restraint use illustrates the attention needed on restraint education for local nurses, health professionals and other health workers. No intervention studies on restraint reduction have been conducted in Hong Kong. Therefore, this project was a timely one, which addresses this knowledge gap in client care.

THE STUDY

The project aimed to utilize knowledge from the existing literature to construct a framework (Fig. 1) for restraint reduction in a local nursing home. The study adopted a single group pre- and post-test design. The basic assumptions underlying this study were, first, that misconceptions about the use of restraint and the lack of adequate knowledge on restraint alternatives are amendable to staff education. Second, the formation of a RRC comprised of front line workers as well as members from the management team will facilitate the implementation of a restraint reduction policy. The role of the RRC in evaluating individual's need for restraint on a regular basis would help to assure consistency and quality of care. It was believed that the use of physical restraint could be reduced through staff education and the implementation of the RRC. It is also the Team's intention to identify future research directions in restraint reduction relevant to local practice.

In this study, the focus is on physical restraint use and not on other means of restraint such as chemical restraint. Physical restraint is defined as any manual method or physical or mechanical device, material, or equipment attached to the resident's body so that the individual's free movement is restricted. These include chest/vest, wrist or ankle ties, and 'geriatric' or recliner chairs with fixed tray table (Evans, et al., 1997). Fall is defined as 'a subject's unintentionally coming to rest on the ground not as result of a major intrinsic event (e.g. stroke or syncope) or overwhelming hazard' (Hiltunen, Kivela, Koski, & Luukinen, 1994). The prevalence of physical restraint use and the incidence of falls before implementing the program were identified, and thirdly, the effect of the program in the reduction of restraint use was examined.

The questions to be addressed in this study include:

- What is the profile of the person needing restraint?
- What are the variables associated with the use of restraint?
- Is there a difference in the rate of restraint after the implementation of two interventions namely, a staff in-service education program, and the development of a restraint reduction policy monitored and implemented by a Restraint Review Committee?
- Would there be a difference in the rate of falls and falls with injury after the implementation of the intervention programs?

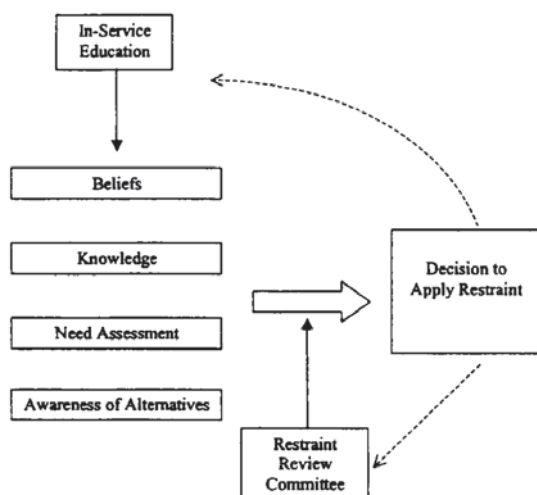


Figure 1. Framework of Study

METHOD

Sampling

Access was granted by a local private nursing home (Home). With strong support from the management, an in-service education package concerning the use of restraint and restraint alternatives was provided to different categories of the Home's staff that included registered nurses, enrolled nurses, health workers (HW) and personal care workers (PCW). The research team (Team) worked together with the administrators, nurses and the physiotherapist in the Home to develop a policy

for restraint use. A RRC was established to implement the proposed restraint reduction policy and to monitor the use of restraint in individual residents. Residents who were bed bound were excluded from the study.

Ethical Considerations

All residents who met the inclusion criteria were invited to join the study. Informed consent was obtained from either the resident if s/he were capable, or from their proxies when appropriate. Anonymity and confidentiality of the data were assured in accordance with the Privacy Ordinance. Throughout the study data were accessible only to the researchers. Other than demographic data, medical and health-related information were collected from participating residents. The overall rates of restraint use and the incidence of falls in the home during the pre- and post-intervention period, each lasted two months, were collected using direct observation, resident and staff interviews, and review of resident and facility records.

Intervention 1 – In-service Education Program

In our study, nurses (RNs & ENs) attended classes as a group while other unregulated health workers including HWs and PCWs attended another class. Contents of the in-service program were covered in greater depth for the nurses. Sessions for the nurses and other health workers lasted 90 and 45 minutes respectively for each session. There were three weekly sessions, each with a different focus on restraint reduction and fall prevention. Objectives of this educational program were threefold. First, to provide evidence-based information on the use of restraint and restraint reduction and to rectify misconceptions, if any. Second, to teach staff about the use of restraint alternatives, and last, to discuss what constitutes an appropriate restraint use policy and appropriate care for residents who require physical restraint use, as a last resort. The educational program was developed by the Team based on a program developed and tested by Strumpf and colleagues (Strumpf, Evans, Wagner, & Patterson, 1992).

Intervention 2 - Restraint Review Committee (RRC)

The Home's RRC consisted of the nurse manager, 3 registered nurses (each responsible for their own cluster of residents), the Home's physiotherapist, and 3 members of the Team (the project leader, one project member and a master's student involved in data collection). Based on information collected from the Home, the Team drafted an initial Restraint Reduction Policy for front-line workers and the management for comment. This proposed policy was intended to become a working document for the Home even after the study was completed.

A week after the In-service education program had commenced, the RRC started its weekly meetings. During these weekly meetings, the RRC discussed individual residents who required some kind of restraint in daily care. Residents' data were reviewed based on assessment findings prior to RRC meetings. With input from nurses, the physical therapist and the Team, the RRC decided on the status of individual residents in terms of their needs for restraint, whether alternatives were useful and available, and make recommendations on the plan of care. The nurse brought the recommendations back to her own team of staff so that all staff looking after the resident would be aware of the plan of care. The RRC also contacted families if needed - to discuss changes in care routines with families. Subsequent meetings would follow up on recommendations from previous RRC meetings.

Measures & Instruments

Residents' mobility status, ability to perform activities of daily living, continence status, vision and hearing function were categorized in accordance with the operating definitions used by the Department of Social Services in the assessment of older people for their admission eligibility to long-term care settings. Residents' history of fall was defined as having the experience of one or more falls two months prior to intervention. The presence of agitated behavior was determined according to staff report and nursing records. Current psychoactive drug use was determined by

examination of residents' medication charts. Psychoactive medications included antipsychotics, anxiolytics, hypnotics and sedatives. The Mini-Mental State Examination (MMSE) was used for screening of cognitive status, while the Morse Fall Scale was used for fall risk assessment.

Among the brief cognitive tests that have been proposed in dementia surveys, Grut and colleagues (1993) found that the MMSE, developed by Folstein, Folstein, and McHugh (1975), to be one of the most frequently used and extensively studied with regard to precision and accuracy. A Cantonese version of the MMSE had been validated by Chiu and her colleagues (1994) locally and had been found to have good reliability and validity. The Morse Scale (with a 0-125 scale) (Morse, 1997) is one of the more popular fall risk assessment scales used locally.

Three raters in this study were trained to administer the MMSE and the Morse Fall Scale. Training was provided until perfect agreement was achieved among the raters. Of the 94 subjects who were recruited, one died and three were discharged prior to study completion. The final sample, therefore, consisted of 90 (84.95%) subjects out of a total of 106 residents in the home (including the very frail and bed-bound residents).

Data Analysis

Statistical analyses were performed using the Statistical Packages for Social Sciences 10.0 for Windows (SPSS Ltd, Chicago, IL). The characteristics of residents to whom restraint was applied versus those who were not restrained were compared using Mann-Whitney U test when the variables did not show a normal distribution. Independent t-tests were used when the variables under examination were normally distributed. Changes in the incidence of falls after intervention were analysed using Wilcoxon signed-ranks test. Logistic regression (adjusted model) was used to identify risk factors affecting restraint requirement. The correlation between the use of restraint and falls prior to and after intervention was tested by using chi square analysis.

RESULTS

Sample demographics and characteristics (n=90) are shown in Table 1. Their average age was 79.8 years, with 31.1% of them male and 68.9% female. The mean length of stay was 8.4 months. They had an average of 2.9 numbers of medical diagnoses and were quite dependent in their activities of daily living (ADL). Nearly 87% required assistance for mobilizing and 72.2 % needed assistance in

Table 1 Demographic and Clinical Characteristics

	Total Sample (n = 90)	Subsample Group RG* (n=13)	NRG* (n = 77)	P value (C.I.)
Demographics				
Age \bar{x}	79.78 \pm 7.22	76.00 \pm 4.18	80.42 \pm 7.45	0.004
Gender M	28 (31%)	1 (8%)	M = 27 (35%)	0.005
F	62 (69%)	12 (92%)	F = 50 (65%)	
LOS \bar{x}	8.4 \pm 3.73	8.5 \pm 3	14.4 \pm 4	0.92
Clinical Data & Measures				
# Medical Diagnoses \bar{x}	2.94	3.38	2.87	
History of fall	40 (44%)	6 (46%)	34 (44%)	0.01
Morse Scale \bar{x}	52.36	71.15 \pm 17	49.22 \pm 19	0.001
% Ambulatory with aids on assistance				
Self-ambulatory	25 (28%)	0 (0%)	25 (32%)	
Require assistance	56 (62%)	6 (50%)	50 (65%)	<0.001
Totally dependent	8 (9%)	6 (50%)	2 (3%)	
% Dependent in ADL	65 (72.2%)	n = 13 (100%)	52 (67.5%)	0.016
MMSE \bar{x}	13.51	8.3 \pm 7	14.4 \pm 7	0.01
% Presence of agitated behavior	1 (1.1%)	0 (0%)	1 (1.3%)	0.015
% Psychoactive drug use	18 (20%)	7 (54%)	11 (14%)	0.001
% Bladder incontinence	25 (28%)	9 (69%)	14 (18%)	<0.001
% Bowel incontinence	25 (28%)	9 (69%)	14 (18%)	0.14
% Impaired vision	56 (62%)	8 (62%)	48 (62%)	0.96
% Impaired hearing	45 (50%)	9 (69%)	36 (47%)	0.14

*RG, Restrained group; NRG, Non-restrained group

\bar{x} Mean \pm SD (Percentage)

MMSE=Mini Mental State Examination

Morse=Morse Fall Scale

ADL=Activity of daily living

ADL. Twenty-nine per cent had bladder incontinence and 25.6% were incontinent with their bowels. Sixty-two per cent of them had impaired vision and 50% of them had hearing impairment. The mean Morse score was 52.4 (SD=20.3), and 44 had a history of fall. The mean MMSE score was 13.5 (SD= 7.5) and the number of persons having a score of 19 or below (signifying cognitive impairment of some kind) was 68 (75.6%). However, only one of them presented with agitated behaviors.

The pre-intervention characteristics of the sub-samples of subjects being restrained (R) and not restrained (NR) were examined for any significant differences in their demographic and clinical characteristics. Thirteen subjects had been restrained and 77 had not. The R group was a few years younger (76 years vs. 80 years; $p=0.005$) and had more females (92.3% vs. 64.9%, $p=0.05$). This group also had a lower mean MMSE score (Score 8.3 vs. 14.4, $p=0.014$). None in the R group reportedly had any agitated behavior and only one in the NR group was reported by nurses as having agitated behavior. However, there were significantly more in the R group who used psychoactive drugs versus the NR group (53.8% vs. 14.3%, $p=0.001$). Their past history of falls was also significantly different - 6% in the R group versus 34% in the NR group ($p=0.011$). Interestingly, more subjects in the NR group had a fall history than the R group. The R group also had a higher risk for fall as indicated by a higher mean Morse score (Scores 71.1 vs. 49.2; $p=0.001$). They were also significantly different in terms of their dependency level - with all belonging to the R group (100%) being classified as needing assistance in ADL, while only 67.5% of the NR group required assistance ($p=0.16$). There

were also more residents in the R group who had bladder incontinence (69.2% vs. 22.1%, $p=0.0001$) and bowel incontinence (69.2% vs. 18.2%, $p=0.0005$) than the NR group.

The number of residents being restrained in the home and not restrained in the home in both the pre- and post-intervention periods remained unchanged. The number of fallers in the pre-intervention and post-intervention period was 12 and 7 respectively. Wilcoxon Signed Ranks test was used to compare the incidence of fall between the two periods and there was no significant difference.

Logistic regression (adjusted model) (Table 2) showed that only two of the sample's characteristics were influential factors for being restrained - dependency level and the use of psychoactive drugs. Those who were totally dependent were 54 times more likely to be restrained compared with those who were capable of self-care (CI, 7.4, 402). Those who were not prescribed any psychoactive drugs were 43 times more likely to be restrained (CI, 5, 385).

Since the prevention of fall had been frequently reported as one of the reasons for the use of restraint, the chi square statistic was used to test for the association between falls and restrained status. No significance was found for either the pre-intervention ($p=0.67$) or the post-intervention ($p=0.38$) period.

Among the 13 restrained residents, restraint was not applied to 4 (30.8%) of them during night-time. According to the RRC, restraint use was deemed appropriate for almost half of the subjects (6/13). These residents were found to have very poor retraining potential as a result of poor trunk control and/or rigidity of body, with physical deformities or extensive

Table 2 Predicting factors on the use of restraint

Variable fitted into the equation model	Adjusted relative odds	95% confidence intervals	P values
Gender (male to female)	33.3	0.9, 125	0.06
Dependency level (totally dependent vs self-ambulatory)	54.4	7, 402	0.0001
Psychoactive drug (without use vs use)	43	5, 385	0.0007

brain damage. Their mean Morse score was 71.2 (+ 16.9). For the other seven residents, one within this R group had the potential to be retrained in her functional and mobility level but needed to be actively treated. However the family was unwilling to pay for the extra cost incurred for physiotherapy. This resident, therefore, needed to wait for an available place in a Geriatric Day Hospital within the district. The second resident was referred to RehabAid for expert advice on anti-slippery (from chair or wheel-chair) devices. (RehabAid is a local rehabilitation organization that provides both direct care and consultation services. It is one of the agencies under the Hospital Authority of Hong Kong dedicated to provide resources and rehabilitation services for people in the community.) Two other subjects had unstable medical conditions and the RRC recommended reviewing their cases again when their conditions stabilized. The condition of the fifth subject allowed for the use of a less restrictive form of restraint. However, the family was reluctant to try any alternative means for fear of falls and accidents. The last two subjects insisted on the continual use of restraint because they felt safer with the restraining jacket as a protective measure against falls.

The most common type of restraint used was the safety vest (n=9, 69.2%) while the waist belt (n=4, 30.8%) was the second most common. Lap tables were used in 4 cases in combination with safety vests. Bedside rails were used for all cases needing night-time restraint. There were no other means of restraining devices observed or recorded in this group.

Various intervention strategies were recommended by the RRC. The two most common were to release the restraints when supervision became available and to involve and educate families in care. Ten of the subjects (76.9%) in the R group had been recommended for family involvement of some kind. Family involvement was successful in three areas: namely, giving the Home permission to not use night-time restraints; releasing restraint while visiting; and learning about safe supervision of residents while mobilizing. However, two relatives requested continuing use of restraint practice after several trials of restraint

reduction. They felt the restraint delivered better assurance against falls. The rest of the restrained residents had different recommendations concerning care and daily routines. Regrettably, these recommendations were mostly not followed due to a multitude of reasons, and compliance with the recommendations of staff was found to be variable during the intervention period. Overall, two residents' restraint use was successfully eliminated during night-time.

DISCUSSION

Most of the subjects in the sample required assistance in moving about and were dependent on others in ADL. They were more likely to suffer from vision and hearing impairment and the majority of them also suffered from cognitive impairment of some kind. In this regard, our results were dissimilar to other overseas studies. The literature reported that cognitive status, ambulatory status and psychoactive drug use were frequently associated with the incidence of falls and the use of restraint (Cali & Leil, 1995; Capezuti, Strumpf, Evans, Grisso, & Maislin, 1996; Capezuti, Strumpf, Evans, Grisso, & Maislin, 1998; Tinetti, Liu & Ginter, 1992). In this study, dependency level rather than ambulatory status was noted to be of significance. Contrary to what was commonly reported, psychoactive drug use had a negative association in this study and men were shown to have a higher chance of being restrained.

There was no significant difference between the pre- and post-intervention rate in restraint use and fall rates. In fact, no subject's restraint was removed as a result of the intervention. Both the statistical findings and observations of the RRC demonstrated that the use of physical restraint was not widespread in the private nursing home under study. In fact, the use of restraints for nearly half of this group was appropriate. Regrettably, two residents refused to go without restraints even with advice from the Team and the conditions of two others were medically unstable during the time of the study. In other words, only three out of the 13 residents in the R group might benefit from restraint reduction efforts.

The literature revealed that RRCs, together with staff education, had been effective in reducing restraints, but not so in this study. Individually, however, there were some improvements in individual subjects. One resident in the restrained group had reduced night-time restraint after the intervention. Alternative means of using restraints were tried on two of this subgroup. Moreover, the family of the resident who had been referred to RehabAid was appreciative of the effort of the RRC and showed commitment in caring for the resident. A few staff became interested in what the RRC did and warmly interacted with the RRC during meetings and discussions.

As in other clinical trials, the Team had to face multiple constraints in the practice setting. One possible confounding factor in the study was that the Home, as a private organization, has less professional staff in comparison with publicly funded settings. The health workers' and the personal care workers' motivation or the lack of it, in implementing a least restraint policy, would be another confounding factor.

The Home suffered from a high turnover rate of the HWs and PCWs. Consequently, staff orientation and training was a challenging task. Restraint reduction has been found to be a gradual and sometime difficult process (Ejaz et al., 1994) that is unlikely to succeed without concerted efforts from all parties involved (Dunbar, Neufeld, Libow, Cohen & Foley, 1996). It is unrealistic to expect changes in staff beliefs and attitudes over a short period of time.

Even without quantitative support for the effectiveness of the intervention in modifying outcomes, this study did produce some positive team outcomes. The pivotal role of the RRC became apparent as the study progressed. Through weekly RRC meetings, the condition and progress of each individual patient was monitored and discussed. In these meetings, staff could not take things for granted and needed to be accountable for the restraint decisions they had taken. The processes helped the staff (nurses, physiotherapist) to continually strive for the provision of the most appropriate level of care. The intervention period was short. In future studies, the intervention period should be considerably

longer and there should be repeated measures of the outcome variables under study.

The essential role of the family as an integral member of care also emerged in this pilot project. The work and recommendations of the RRC illustrated that the interventions could have been so much more effective if families and staff worked together closely as partners in care. Nearly all (10/13) of the subjects might have benefited from family involvement of some kind. The RRC identified several reasons as to why the proposed involvement of families had not occurred. It was difficult to identify the family decision-maker when permission about care practices was sought. Moreover, some families insisted on the use of restraint for fear of accidents, while other families were not greatly involved in care of the residents.

Limitations

The sample size in this pilot study was small and the fall rate in the Home had not been high (mean fall rate 14.6 incidents per month). All of these factors would affect the statistical analysis. In fact, there was no subject whose restraint was absolutely released after implementation of the interventions. The relatively short period (only two months) of our intervention probably was one of the confounding factors in the study. Intervention studies similar in nature usually entail an intervention period of a longer time period.

CONCLUSION

Two main features have been repeatedly shown by researchers to be capable of reducing the use of restraint – staff education and the setting up of a RRC. This project reported a first attempt to utilize evidence from the literature to construct a model for restraint reduction in the local setting. Though there was no statistically significant reduction in restraints in the Home within the limited study period of time, the Team brought about some individual changes. This study identified family education and involvement as crucial elements in restraint reduction. Further studies with attention to this particular area will likely help to address the knowledge gap on restraint reduction.

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在老人院舍內減少使用約束物的研究

這個先驅性研究採用了單一組別的準實驗設計，目的是探討(1)教職員的培訓和(2)檢討約束物委員會的成立，是否能有效減低安老院對院友的身體約束。研究向安老院的護士和其他健康工作者提供一連的培訓講座，以便讓他們認識減低約束物使用的措施。而檢討約束物委員會的成員包括安老院的經理，物理治療師，三個護士長和研究組的成員。委員會每星期舉行一次會議來制定減少使用約束物的措施，和檢視每個有用的約束物住院長者的情況。這研究在一百零六位的住院長者中，共招募了九十位的長者參加。其中十三位的研究對象身上有用約束物。在干預期後，此人數並沒有相應調低。根據委員會的數據和觀察所顯示，限制肢體行動並不廣泛應用於這所安老院之中，大部份的措施也能恰當地應用。跟大部份文獻調查報告所發現的相反，在本安老院中，長者是否有跌倒的紀錄，與他會否被約束無關。最後，研究也顯示家人的參與對減少使用約束物起著非常重要的作用。

摘要