Progress in assessing the quality of Australian nursing home care

Valerie Braithwaite and John Braithwaite
Research School of Social Sciences, Australian National University

Diane Gibson
Department of Anthropology and Sociology, University of Queensland

Toni Makkai
Research School of Social Sciences, Australian National University

Abstract: This paper critically examines the clarity, practicality, desirability and validity of the 31 outcome standards that the Commonwealth Government introduced to assess quality of care in Australian nursing homes. Key features of the Australian system in an international context are its focus on outcomes, the limited number of standards used, and the comparatively subjective nature of some standards. Directors of nursing from 410 nursing homes in the Brisbane, Sydney, Melbourne and Adelaide metropolitan areas were interviewed as part of the Nursing Home Regulation in Action Project. The overwhelming majority reported the standards as clear and desirable. In the minority of cases where problems were raised, practicability was the basis for concern. A factor analysis of the ratings given by standards monitoring teams to these 410 homes failed to demonstrate redundancy across standards or grouping of standards by objectives. Nevertheless, the standards were sufficiently highly interrelated to justify summing to produce an overall compliance score. This study shows that the 31 standards hold up well under scrutiny, both from the perspectives of key actors in the monitoring process, and from a psychometric point of view. (*Aust J Public Health* 1992; 16: 89–97)

S ince 1987, the Commonwealth Government has implemented a program of nursing home regulation which, from an international perspective, is both innovative and sophisticated in its conception. The approach involves the systematic assessment of nursing homes in terms of 31 criteria. The criteria are outcome oriented, focusing more on the extent to which the nursing home achieves quality care than on how it goes about accomplishing such goals. Furthermore, the outcome standards have been designed to give as much emphasis to quality-of-life issues as to the more traditional concerns of quality nursing care. The limited number of standards constitutes a potentially efficient system for nursing home evaluation, providing the standards are comprehensive and clear. The purpose of this paper is to provide a preliminary examination of the clarity, practicality, desirability, and internal consistency of the 31 standards currently in use by standards monitoring teams.

Historical emergence of the 31 standards

Prior to the Giles Report,[1] the Commonwealth involvement in nursing home inspections was limited. First, financial inspections were undertaken to check the accuracy of benefit claims. Second, medical

Correspondence to Dr Valerie Braithwaite, Research School of Social Sciences, Australian National University, GPO Box 4, Canberra, ACT 2601.

assessments categorised residents as requiring either ordinary or extensive care for purposes of benefit levels. Third, status inspections checked physical facilities, cleanliness and the adequacy of staffing levels. The latter were input oriented, the assumption presumably being that with the correct materials and resources, quality care would automatically follow.

In recent years, the meaning of quality of care in nursing homes has been widely debated.[2-5] In the United States, the National Citizen's Coalition for Nursing Home Reform and the Institute of Medicine Report[3] have had a major impact on regulatory practice by addressing quality-of-life issues. In a study sponsored by the Coalition for Nursing Home Reform, Spalding[6] sought the opinions of 455 articulate residents on what constituted high quality of life and care in a nursing home. Of highest importance was the quality of interactions with staff—how helpful, friendly, competent and cheerful they were. Privacy, opportunity for choice, and food quantity and quality were also of concern to the residents. The Institute of Medicine Report[3] took up these issues: 'Many aspects of nursing home life that affect a resident's perceptions of quality of life—and therefore, sense of well-being—are intimately intertwined with quality of care' and extended traditional notions of quality of care to include residents' 'sense of satisfaction with oneself, the environment, the care received, the accomplishment of desired goals, and control over one's life' (p. 51). The change in the way

quality of care has been conceptualised in recent years is dramatically captured by Day and Klein:[2] 'the way [nursing home residents] . . . are treated on their way to the grave—with kindness, courtesy, and consideration—will always be more important than whether they arrive there a little fitter or later' (p. 339).

A second related issue which has been the subject of debate is the specification of inputs and processes in regulations when the goal is to affect outcomes. Human factors can intervene to convert the best resources into inadequate services as well as to convert inadequate resources into exemplary services. In the United States, the Institute of Medicine Report[3] recommended reorienting the approach of regulation to give more emphasis to the care being provided and its effect on residents:

> The standards . . . should identify desirable resident outcomes of care processes in functional status, physical well-being and safety, emotional well-being, social involvement and participation, cognitive functioning, and resident satisfaction . . . Specifying desired processes and outcomes is important because it focuses on the purpose of nursing home care [p. 83].

In Australia, both these issues of quality of life and outcome-oriented standards for regulating nursing homes were brought to public attention by the Giles Report[1] and the Nursing Homes and Hostels Review.[7] Consumer groups expressed enormous concern about the government's failure to ensure proper standards of care in Australian nursing homes.[8] The industry itself was also critical of the focus of the inspections. Mr John Gillroy, executive director of the Australian Nursing Homes Association, said in his evidence to the Giles Committee that inspectors were 'not interested in patient care matters—they want to see whether there are cobwebs in the laundry' (p. 120).[1]

The Giles Report and the Nursing Homes and Hostel Review of 1986 brought about a number of changes in the Commonwealth Government's approach to nursing homes. One focus of attention has been staffing mixes and their relationship to the quality of life of residents.[9] Another has been a sharp departure from the monitoring of nursing home inputs to the monitoring of nursing home outcomes, outcomes which had as much to do with quality of life as with more traditional notions of quality of care. A Commonwealth–state working party on nursing home standards was established and consulted with industry, consumer, union and professional groups. The result was 31 outcome standards which were given legal standing under Section 45D of the National Health Act in November 1987.

The standards from a measurement point of view

At face value, the Australian system has a number of features which make it an attractive alternative to the systems operating in Britain and the United States. Britain lacks a universal protocol and relies on individual inspectors to interpret national guidelines. In contrast, the United States relies heavily on a federal protocol which lists over 500 requirements. The United States system purports to be outcome oriented and objective, but nevertheless is cumbersome. It is impossible for nursing homes to be evaluated on each requirement individually. When an inspector observes the breach of a standard, the result will be a recording of 'not met'. Recording 'met' means that this has not happened; it does not mean that someone has actually gathered the information to justify assurance that the standard is met. With 31 standards, the Australian system requires that the nursing home be evaluated on each one using a three-point rating scale (1 = met, 2 = action required, 3 = urgent action required) and that the evidence to support each of the 31 ratings is actually debated within the team. This is not to say that Australian monitoring teams never take the shortcuts of the American inspectors. Indeed, our qualitative research has provided evidence of this happening. The point to be made here, however, is that in the Australian system with only 31 standards, it need not occur. With over 500, it is inevitable.

A second strength of the Australian system from a measurement perspective is that the standards were derived from a conceptual framework and were not put together on an ad hoc basis. Industry, government and consumer representatives agreed on seven objectives which represented community perceptions of quality of life within Australian nursing homes:

1. Health Care: Residents' health will be maintained at the optimal level possible.
2. Social Independence: Residents will be enabled to achieve a maximum degree of independence as members of society.
3. Freedom of Choice: Each resident's right to exercise freedom of choice will be recognised and respected whenever this does not infringe on the rights of other people.
4. Homelike Environment,: The design, furnishings and routines of the nursing home will resemble the individual's home as far as reasonably possible.
5. Privacy and Dignity: The dignity and privacy of nursing home residents will be respected.
6. Variety of Experience: Residents will be encouraged and enabled to participate in a wide variety of experiences appropriate to their needs and interests.
7. Safety: The nursing home environment and practices will ensure the safety of residents, visitors and staff.

These objectives were then broken down into a set of components called standards, representing different aspects of the objective, yet together intended to comprehensively cover the desired outcome.

Criticism has been levelled at the Australian standards because they are not sufficiently objective to be useful in the enforcement process. Phillips and Spector[10] describe the criteria as 'too vague to be measurable or observable' (p. 302). In particular, they point to 'social independence' and 'freedom of choice' as objectives that cannot be translated into observable, practical measures of quality of life. Their argument, more generally, is that commitment to residents' rights precludes standards from being operationalised in a reliable and valid manner. They are not alone in this view. The search for concrete objective indicators pervades the United States literature on quality of care.[3,11-13] One of the few studies

that has not shied away from subjectively measuring quality of care is that of Spalding.[6] While applauding her efforts, Kane and Kane[11] point out that these 'indicators of quality are much more elusive, subjective, and difficult to measure than simple staffing ratios' (p. 261).

When the goal of the regulation process is to triumph in court, the need for observable, objective indicators and avoidance of subjective reports and surveyor-based judgments carries greatest weight. When the goal is to ensure quality of life for the residents, however, the above criticisms provide important warnings, but unacceptable solutions. Regulations encompassing quality of life must represent the subjective as well as the objective. To disregard the subjective is to throw out the baby with the bath water. One approach to reconciling demands for adequate representation and objective indicators is to identify a set of objective empirical predictors of an outcome variable which captures both the subjective and objective aspects of quality care. Contriving regulations on this basis, however, is vastly premature, as can be seen from Kane and Kane's review of quality-of-life research (pp. 245–61).[11] Furthermore, when this approach has been attempted in other areas[14] the correspondence between objective and subjective measures has been notable by its absence.

That subjective phenomena can be measured is attested to by the substantial psychometric literature.[15] Addressing measurement reliability and validity are questions of paramount importance when dealing with subjective data, but they are questions which can be answered empirically. This paper starts this process of evaluation by focusing on the validity of the outcome standards used by Australian standards monitoring teams.

The standards in practice

The standards have been in use now for five years. During the Department's consultations for the 1989 review of the standards, very few comments were made by industry, consumers and professional groups on ways in which the 31 standards failed to cover the relevant domains. Questions have been raised, however, about the clarity of the standards and how they should be used. Should nursing homes pay attention to the number of standards they fail to meet or should they attend primarily to the qualitative data? What does an overall score mean? Are some of the standards redundant and can they be collapsed into a smaller number? Or do some of the standards need to be subdivided to increase their precision and clarity? Such issues have been raised in discussions with standards monitoring teams and with representatives of the nursing home industry since the system was introduced. Data collected in the first wave of the Nursing Home Regulation in Action Project provide the opportunity for us to begin to answer some of these questions.

The data

The Nursing Home Regulation in Action Project is a large-scale ongoing study which focuses on nursing home regulation in Australia. The project incorpor-

ates both Australian-based quantitative research and qualitative fieldwork in Australia, the United Kingdom, Japan and the United States.

The data reported in this paper came from the quantitative Australian-based study. Three sources of data were used: standards monitoring teams' ratings on the 31 standards of 410 nursing homes, standards monitoring teams' assessments of their visits to these homes, and interviews with the directors of nursing of the homes visited. The data were collected over a 23-month period from May 1988 to March 1990. The nursing homes surveyed were located in four geographical regions surrounding Brisbane, Sydney, Melbourne and Adelaide. The 410 homes were selected in two ways. Two hundred and forty-two homes represented a proportionate random sample, stratified by number of beds, type of ownership and the level of disability of residents. The Australian Government was committed to visiting these homes by the end of 1989. The remaining 168 nursing homes were within the sampling region, and were visited by standards monitoring teams within the time frame, but had not been chosen as part of the random sample. Preliminary analyses[16] have shown that the random sample and the supplementary sample do not differ on a range of important variables. Thus the present analyses are based on the composite sample of 410 nursing homes.

Within each state staff were assigned to teams in a 'mix and match' fashion. Across the 410 nursing homes in the sample, 249 different combinations of team members were identified. The largest number of homes visited by a particular team was 15.

Perceptions of standards

By standards monitoring teams

Compliance was high on each of the 31 standards (see Figure 1). For homes visited in this sample, the ratings given by the teams followed the old system. 'Not met' was used instead of the more recent practice of using 'urgent action required', and 'met in part' was used instead of 'action required'. A reliability study demonstrated that changes in name have not altered the use of the three-point rating scale.[17] Nevertheless, to ensure consistency, teams were asked to continue using the old rating system for all the homes in this sample.

The standard which was most often not met or met in part was 7.2 (Nursing home design, equipment and practices contribute to a safe environment for residents, staff and visitors). Fifty-eight per cent of homes needed to improve on this criterion. The highest compliance rating was associated with 2.5 (Residents are enabled and encouraged to maintain their responsibilities and obligations as citizens). Only 6 per cent of homes failed to comply with this standard. The median level of noncompliance for the 31 standards was 25 per cent.

Team members were asked to indicate if it was difficult for them to agree on any ratings on a particular home by circling '1' alongside each standard. Admissions of difficulty ranged from 0 to 2.7 per cent (median 0.7 per cent). These data should be

interpreted cautiously. We believe that teams generally were reluctant to acknowledge that they had difficulties in arriving at their decisions. The quality of the data from the standards monitoring teams has been questioned by us because of the high number of cases where teams reported having no difficulty reaching agreement. Doubts about absolute frequencies need not extend to relative frequencies, however. The relative difficulty reported for different standards can still be useful data.

By directors of nursing

After the standards monitoring process was complete, directors of nursing took part in a structured interview in which they were asked to judge the clarity, desirability and practicality of each of the standards. For each standard, directors of nursing indicated agreement or disagreement. The exercise was repeated three times, first for whether each standard was clear, second for whether each was desirable and third for whether each was practical. Clarity and desirability evaluations were uniformly high. In terms of clarity, the greatest consensus was associated with 1.7 (Residents have clean, healthy skin consistent with their age and general health) and 1.8 (Residents are enabled to maintain oral and dental health) with only 0.5 per cent reporting problems in each case. The least clear standard, posing difficulty to 8 per cent of directors of nursing, was 7.1 (The resident's right to participate in activities which may involve a degree of risk is respected). The median clarity score for the standards was a high 98.8 per cent.

Evaluations of the desirability of the 31 standards were extremely high. The median level of accept-

ability of the standards on the desirability criterion was 99.8 per cent. Ten standards met with unanimous endorsement. The most serious reservations were expressed in relation to 7.1, the 'resident's right to risk' standard mentioned above. Five per cent believed the standard was undesirable.

With regard to practicality, directors of nursing were more likely to be critical, with some standards faring considerably better than others. Six standards fell below the 90 per cent endorsement level. They were:

2.2 Residents are enabled and encouraged to maintain control of their financial affairs. (Impractical for 24 per cent.)

3.1 The nursing home has policies which have been developed in consultation with residents and which (a) enable residents to make decisions and exercise choices regarding their daily activities, (b) provide an appropriate balance between residents' rights and effective management of the nursing home and (c) are interpreted flexibly taking into account individual resident needs. (Impractical for 22 per cent.)

1.2 Residents are enabled and encouraged to make informed choices about their individual care plans. (Impractical for 20 per cent.)

7.1 The resident's right to participate in activities which may involve a degree of risk is respected. (Impractical for 14 per cent.)

4.1 Management of the nursing home is attempting to create and maintain a homelike environment. (Impractical for 12 per cent.)

1.5 Residents are enabled to maintain continence. (Impractical for 12 per cent.)
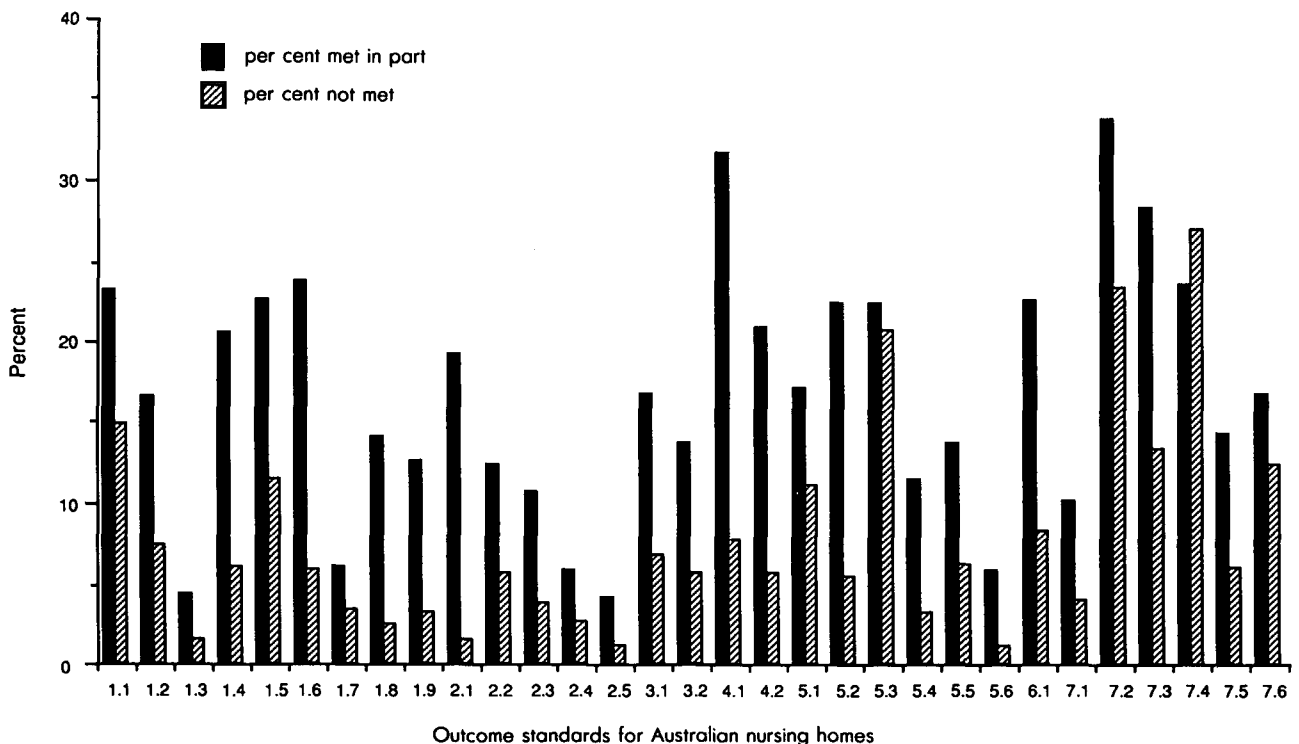

Figure 1: Percent of nursing homes rated 'met in part' and 'not met' by the standards monitoring team (n = 410). (Note: The full list of outcome standards appears in Table 3.)

Table 1: Spearman correlation coefficients for the 31 outcome standards ranked on four evaluative dimensions

	Compliance	Agreement	Clarity	Desirability	Practicality
Compliance					
Agreement	0.63				
Clarity	0.18	0.17			
Desirability	0.05	–0.19	0.52		
Practicality	0.02	0.05	0.53	0.76	

Directors of nursing accepted as most practical (99.3 per cent) Standards 7.4 (Residents and staff are protected from the hazards of fire and natural disasters) and 7.5 (The security of buildings, contents and people within the nursing home is safeguarded). The median level of practicality across the standards was 96.3 per cent.

Together these data suggest that the standards are widely accepted as usable and valid indicators of quality of life in a nursing home by both standards monitoring teams and directors of nursing. Yet the question which needs to be addressed to make this conclusion tenable is whether judgments on the four dimensions of team agreement, and directors of nursing's perceptions of clarity, desirability and practicality are independent. For instance, could evaluations made by the teams and directors of nursing depend on the compliance ratings given or received? To answer such a question, the 31 standards were rank-ordered in .terms of frequency of compliance, standards monitoring teams' agreement, and the directors of nursing's clarity, desirability and practicality judgments.

Spearman correlation coefficients for the ranked data are presented in Table 1. Compliance levels did not have a marked impact on the clarity, desirability or practicality judgments of the directors of nursing, a finding which adds credibility to the opinions which directors of nursing expressed on the standards. The strong relationships between clarity, desirability and practicality rankings are not surprising, given that all three can be interpreted as expressions of a for-or-against attitude to the standards. For the standards monitoring teams, standards with lower compliance were those presenting most difficulty in reaching agreement. This undoubtedly reflects the fact that more caution is shown by team members when they are considering asking for action to be taken by a nursing home than when they give a 'met' on a particular standard. The small negative correlation between desirability and agreement may reflect some increased caution by teams in admitting to lack of consensus on standards that are less popular with a very small minority of directors of nursing.

The psychometric structure of the standards

The data presented above rely on the judgments of those who do the regulating and those who are being regulated. Questions of relevancy and clarity, however, can also be approached from a statistical analysis of the interrelationships among standards.

The first step was to test the hypothesis that the seven objectives were discrete and were adequately represented by their nominated standards. A traditional internal consistency reliability analysis was used for this purpose. Underlying these analyses were the assumptions that the ratings on the standards were independent and the three-point scale produced interval data. With regard to the latter, it is of note that dichotomising the data into 'met' and other made little difference to the outcome. The problem of skewed data was offset by the large sample.[18]

Table 2: Correlations and alpha reliability coefficients for the seven objectives[a] ($n = 410$)

Objectives	1	2	3	4	5	6	7
1. Health care	0.80						
2. Social independence	0.57	0.56					
3. Freedom of choice	0.66	0.53	0.78				
4. Homelike environment	0.59	0.55	0.62	0.49			
5. Privacy and dignity	0.59	0.60	0.51	0.58	0.70		
6. Variety of activities	0.42	0.37	0.37	0.35	0.34	*	
7. Safety	0.63	0.52	0.56	0.61	0.60	0.34	0.69
Number of standards	9	5	2	2	6	1	6
Minimum r[b]	0.19	0.05	0.65	0.33	0.17		0.10
Maximum r[c]	0.55	0.34	0.65	0.33	0.42		0.50

Notes
(a) Alpha reliability coefficients are in the diagonal. Where an alpha reliability coefficient is not meaningful (because there was only one standard representing the objective), an asterisk is substituted for the coefficient.
(b) This is the minimum correlation between pairs of standards under this objective.
(c) This is the maximum correlation between pairs of standards under this objective.

Alpha reliability coefficients were calculated for the set of standards representing each objective. Scores for each objective were obtained by summing ratings on the relevant standards, and Pearson correlation coefficients were calculated between these scores. The assumption underlying this approach is that if standards adequately represent their nominated objective, the variance they share with like standards will exceed the variance shared with unlike standards from other objectives. The alpha reliability coefficients and the scale intercorrelations appear in Table 2.

The standards appear to represent their objectives well, with alpha reliability coefficients ranging from 0.49 to 0.80 (median = 0.70). The correlations between objectives were lower, as expected, but remained substantial, ranging from 0.34 to 0.66 (median 0.56). The strong correlations between objectives brings into question their empirical separability.

Closer inspection of specific items and their pattern of intercorrelations suggested that five standards might be better placed under other objectives:

1. Maintaining financial control (2.2) was linked more strongly to freedom of choice than social independence.
2. Maintaining responsibilities and obligations as citizens (2.5) was relevant to social independence but also to the sixth objective, variety of activities.
3. Feeling secure in accommodation (4.2) had more to do with freedom of choice than having a homelike environment.
4. Preventing undue noise (5.4) had more in common with a homelike environment than privacy and dignity.
5. The correct and appropriate use of restraints (7.6) fitted more comfortably with the health care objective than with safety.

Intuitively these findings are not surprising. What was somewhat surprising was that the alpha coefficients for the objectives did not change notably when the standards were regrouped. The biggest change was in the opposite direction to expectations—from 0.78 to 0.73 for Objective 3. Correlations between objectives were also only marginally lower, ranging from 0.28 to 0.67 (median 0.52). These data suggest that the objectives may not be empirically distinct.

An alternative approach was more exploratory and involved the use of principal-axes factor analysis followed by a varimax rotation. Because three of the seven objectives are represented by only a couple of items, it was unrealistic to expect a seven-factor solution to emerge. Furthermore, it was unrealistic to expect a high proportion of variance to be accounted for by this method of analysis. While all variables shared the common element of compliance, they also contained a high proportion of specific variance. The 31 standards were designed to cover the domain representatively and efficiently. They were not intended to overlap in any substantial way. The purpose of this analysis was to try to force the standards

into independent groupings. Simple structure was best approximated through extracting and rotating three factors, accounting for 34 per cent of the variance. Factor loadings appear in Table 3.

The first factor was dominated by standards representing freedom of choice and health care. It was labelled 'Individual freedom and wellbeing'. The second factor was a composite of standards from different objectives. The privacy and dignity and safety standards merged with a homelike environment and some of the social independence standards to define a factor representing 'Homelike quality of life'. The third factor was labelled 'Social engagement' because it brought together variety of experiences and the social independence standards of maintaining cultural ties and social responsibilities.

This particular method of analysis should have regrouped the standards so that they were maximally correlated within a factor and minimally correlated across factors. To investigate how well factor independence was achieved, scales were developed for each factor (standards used in each scale have factor loadings in bold print in Table 3), and scale scores were intercorrelated. Alpha reliability coefficients were also calculated for the scales to give an indication of the cohesion within compared with the independence between them. These data are presented in Table 4. The cohesiveness of the three factor scales is high. So too is their interrelatedness.

This analysis, like the earlier analyses, leads to two conclusions. First, the results do not indicate advantages in combining objectives, regrouping standards or deleting standards. Second, the standards cannot be separated empirically into discrete subgroups. The 31 standards are positively and loosely interrelated. In the previously reported factor analysis, the first factor accounted for the major portion of the variance prior to rotation (30 per cent), supporting the concept of a major dimension representing compliance. Consistent with this interpretation were acceptable item—total correlations (see Table 3) for the 31 standards when they were combined to form one scale. They ranged from 0.28 to 0.70 (median 0.54). The alpha reliability coefficient for the 31-item scale was 0.90.

Discussion

The 31 outcome standards performed well under scrutiny, first from the perspective of directors of nursing and standards monitoring teams, and second from a psychometric point of view. The standards represent goals that the overwhelming majority of nursing homes understand and endorse. Greatest concern focused on the practicality of the standards, with less practical standards also being judged as less clear and/or less desirable. At this stage, however, one could argue that the problems lie, not so much with the standards themselves, but with their implementation—how to get there and how much is enough. For the most part, expressions of concern centred on standards associated with residents' rights. The two dominant themes were: (1) that residents are not always capable or willing to assume con-

Table 3: Factor analysis of the 31 outcome standards and item-total correlations

	Factor 1	Factor 2	Factor 3	Item–total correlation
Objective 1: Health care				
1.1 Residents are enabled to receive appropriate medical care by a medical practitioner of their choice when needed.	0.54	0.21	0.05	0.54
1.2 Residents are enabled and encouraged to make informed choices about their individual care plans.	0.66	0.17	0.25	0.64
1.3 All residents are as free from pain as possible.	0.33	0.18	0.16	0.40
1.4 All residents are adequately nourished and adequately hydrated.	0.42	0.36	0.20	0.60
1.5 Residents are enabled to maintain continence.	0.63	0.25	0.23	0.68
1.6 Residents are enabled to maintain, and if possible improve, their mobility and dexterity.	0.39	0.28	0.28	0.56
1.7 Residents have clean healthy skin consistent with their age and general health.	0.49	0.35	-0.04	0.54
1.8 Residents are enabled to maintain oral and dental health.	0.38	0.25	0.08	0.45
1.9 Sensory losses are identified and corrected so that residents are able to communicate effectively.	0.30	0.32	0.11	0.47
Objective 2: Social independence				
2.1 Residents are enabled and encouraged to have visitors of their choice and to maintain personal contacts.	0.21	0.37	0.37	0.53
2.2 Residents are enabled and encouraged to maintain control of their financial affairs.	0.14	0.35	0.06	0.37
2.3 Residents have maximum freedom of movement within and from the nursing home, restricted only for safety reasons.	0.31	0.43	0.17	0.56
2.4 Provision is made for residents with different religious, personal and cultural customs.	0.36	0.13	0.42	0.49
2.5 Residents are enabled and encouraged to maintain their responsibilities and obligations as citizens.	0.07	0.02	0.54	0.28
Objective 3: Freedom of choice				
3.1 The nursing home has policies which have been developed in consultation with residents and which: • enable residents to make decisions and exercise choices regarding their daily activities • provide an appropriate balance between residents' rights and effective management of the nursing home • and are interpreted flexibly taking into account individual resident needs.	0.63	0.26	0.33	0.70
3.2 Residents and their representatives are enabled to comment or complain about conditions in the nursing home.	0.68	0.19	0.25	0.67
Objective 4: Homelike environment				
4.1 Management of the nursing home is attempting to create and maintain a homelike environment.	0.19	0.59	0.34	0.65
4.2 The nursing home has policies which enable residents to feel secure in their accommodation.	0.53	0.32	0.08	0.60
Objective 5: Privacy and dignity				
5.1 The dignity of residents is respected by nursing home staff.	0.36	0.38	0.24	0.61
5.2 Private property is not taken, lent or given to other people without the owner's permission.	0.26	0.43	0.32	0.60
5.3 Residents are enabled to undertake personal activities, including bathing, toileting and dressing in private.	0.17	0.54	0.18	0.56
5.4 The nursing home is free from undue noise.	0.15	0.29	0.38	0.45
5.5 Information about residents is treated confidentially.	0.18	0.40	0.12	0.45
5.6 Nursing home practices support the resident's right to die with dignity.	0.15	0.34	0.22	0.41
Objective 6: Variety of experience				
6.1 Residents are enabled to participate in a wide range of activities appropriate to their interests and capacities.	0.28	0.12	0.54	0.50
Objective 7: Safety				
7.1 The resident's right to participate in activities which may involve a degree of risk is respected.	0.45	0.25	0.30	0.59
7.2 Nursing home design, equipment and practices contribute to a safe environment for residents, staff and visitors	0.27	0.57	0.12	0.62
7.3 Residents, visitors and staff are protected from infection and infestation.	0.21	0.57	0.08	0.57
7.4 Residents and staff are protected from the hazards of fire and natural disasters.	0.22	0.45	0.04	0.50
7.5 The security of buildings, contents and people within the nursing home is safeguarded.	0.08	0.47	0.00	0.39
7.6 Physical and other forms of restraint are used correctly and appropriately.	0.49	0.11	0.22	0.52

Table 4: Alpha reliability coefficients and scale inter cor-
relations based on the factor analysis

	1	2	3
1. Individual freedom and wellbeing	0.88		
2. Homelike quality of life	0.70	0.84	
3. Social engagement	0.57	0.55	0.60

Note: Alpha reliability coefficients are in the diagonal. It should be noted that standard 1.9 had its highest loading on factor 2. However, it also loaded significantly on factor 1 and was only marginally less important on this factor than on factor 2. Consequently, the standard was included on both factor scales. Standard 2.1 had equally significant loadings on factors 2 and 3 and was therefore included in both factor scales.

trol over their lives, and having them do so may jeopardise their wellbeing and/or the wellbeing of others; and (2) that residents' rights and meeting individual needs can threaten the effective management of the home.

Such concerns are understandable. More importantly, they should not be surprising. It is easy to blame such problems on lack of clarity, though it is noteworthy that very few did. The greater concern for practicality supports an alternative interpretation. Expressions of concern are an inevitable part of the process of implementing new standards which tap into a new ideology about how nursing homes should be run. Directors of nursing are given rules to tell them what they should be achieving, but the whole picture of such rules in action is not there for them to observe and model. Increasingly, guidelines are being developed to help those involved in the regulation process converge on a clear understanding of acceptable implementation. In relation to resident risk-taking, for instance, McDonald and Bates[19] have advised nursing homes as follows:

> It is not a breach of the common law obligation of reasonable care for a nursing home or its staff to respect the lifestyle choices of residents of sound mind, even if these choices are foolish or dangerous, provided that a reasonable effort is made to inform the resident prior to the activity about the risks involved in what they are choosing to do. If the resident persists and is injured, then the nursing home would not be liable provided they had made reasonable efforts to counsel the resident. All of this should be documented in order to protect the nursing home and staff [p. 30].

Guidelines can assist implementation to some degree. They cannot be expected to allay all concerns, however. It is impossible for any regulatory document to detail every scenario a nursing home may encounter, with its ideal solution. Furthermore, such guidelines can be counterproductive if they redirect attention to detail, losing sight of the overall spirit of the legislation in the process. Ultimately, implementation of the guidelines rests on the professional judgment of nursing home staff.

One strategy for assisting staff lies in the use of stories about successful goal attainment and unsatisfactory implementation of the standards. Such an approach arises from a theoretical perspective that is critical of conventional notions of rules guiding action. Using police work as an example, Shearing and Ericson[20] present the argument that individuals do not 'walk around with rules in their heads that

they apply to situations . . . to decide what to do' (p. 2). Instead action is guided by what they did in similar situations or by stories they have heard other police officers tell. 'Police culture', they conclude, is not 'a book of rules, . . . [but] a story book'. A similar argument might be applied to the process of adjustment to new regulations for nursing homes. As time passes, stories of successful and unsuccessful implementation should accumulate, and nursing home staff should feel more at ease with the practicality of some of the standards which challenged previous ways of doing things.

From a psychometric point of view, standards to be given close scrutiny were those that had little in common with other standards and which related to other standards in an unpredictable fashion. Either pattern would call into question the validity of the standard, suggesting that we were measuring largely error or a characteristic irrelevant to quality of life. All standards passed this test, although some standards showed more complex patterns of interrelationships than anticipated.

The standards fall a long way short of being pure measures of a single objective. Many of the standards relate to several objectives simultaneously. For instance, maintaining the responsibilities and obligations of citizenship is equally relevant to social independence and variety of experience. Even when an attempt was made to segregate the standards through factor analyses, considerable overlap was found to be unavoidable. This was not a characteristic of specific standards, but rather of the majority of standards. These data suggest that if we want to measure quality of life in nursing homes we cannot carve the domain neatly into a number of boxes and have mutually exclusive and mutually exhaustive sets of standards. The standards are likely to be multifactorial, and users should be aware of the way in which different objectives relate to individual standards.

The fact that all standards were loosely interrelated supports summing the standards to give an overall compliance score, when it makes theoretical sense to treat the standards collectively. What the standards have in common is 'doing the right thing'. Nursing homes are told that if they want to do the right thing for the quality of care of their residents, they must meet all 31 standards. If they want to enjoy a high reputation with the government and with their peers, they must aim for 31 'mets'. What the standards share is a common aspirational frame of reference, the power of which is enhanced by the overwhelming consensus in the industry that all standards are desirable.

Alternatively, it could be argued that standards monitoring teams are subject to a halo effect which helps 'good' homes avoid criticism and invites criticism of 'bad' homes. This possibility cannot be discounted completely. In its extreme form, such a response bias on the part of the teams should lead to a bimodal distribution on compliance scores. Such was not the case. Furthermore, qualitative data collected by the authors and other members of the research group who accompanied teams on visits did

not provide evidence of team members expecting homes that excelled on one objective to excel on others.

One expectation which has been widely held, but which these data refute forcefully, is that too often nursing homes provide quality health care in an institutional environment where quality-of-life issues are overlooked. The stereotype exists of nursing homes with 'old-style matrons' who meet the highest standards of excellence in health care but ignore residents' participation, individualisation and the social aspects of quality of life. Our data provide no support for this stereotype. The nursing homes which provide better health care also struggle hardest against institutionalisation and work toward providing quality of life for residents in its broadest sense. The first rotated factor captured both individual freedom standards and traditional physical wellbeing standards. When the 31 standards were treated as a unidimensional scale, the 10 standards with item–total correlations above 0.60 cover physical wellbeing (nourishment, continence, a homelike, secure and safe environment) and residents' rights (say in care plans and nursing home policies, and rights to dignity, to complain, and to have private property respected).

Conclusion

From these data the 31 outcome standards appear to be working well. This is only the beginning, however, of the process of evaluation. A study of the reliability of the standards has been undertaken to examine how consistently monitoring teams are using them. Further work is also needed to examine the interrelationships among the outcome standards, which emerged from this study as being more complex than initially envisaged. While these data support the use of one overall measure of compliance, there may be circumstances where research interest lies in specific components of quality of life. Defining these components and developing the best possible measures of them is an important question for future research.

Questions of validity must also ultimately address the issue of the relationship between what is being measured by the standards monitoring teams and what nursing home consumers regard as quality of life. Perhaps this issue can be illustrated most powerfully by the standard 'a homelike environment'. Both regulators and industry have been known to point to this standard as being too dependent on individual taste. The obvious answer to this dilemma lies in the hands of the consumers. Finding a way for them to articulate their expectations and needs will provide the yardstick by which regulators and nursing home staff alike can attach convergent and fruitful meanings to standards like a homelike environment. Through acceptance of the subjective and through openness to individual expressions of taste, the quality of life of residents will surely be enhanced. The

cost is small: regulators and nursing home staff learning to tolerate the ambiguity and perhaps the idiosyncratic tastes of some of their residents.

References

1. Senate Select Committee on Private Hospitals and Nursing Homes (Giles P, Chairman). *Private nursing homes in Australia: their conduct, administration and ownership*. Canberra: Australian Government Publishing Service, 1985.
2. Day P, Klein R. The regulation of nursing homes: a comparative perspective. *Milbank Q* 1987; 65: 303–47.
3. Institute of Medicine. *Improving the quality of care in nursing homes*. Washington DC: National Academy Press, 1986.
4. Ullman SG. Assessment of facility quality and its relationship to facility size in the long-term health care industry. *Gerontologist* 1981; 21: 91–7.
5. Vladeck BC. *Unloving care—the nursing home tragedy*. New York: Basic Books, 1980.
6. Spalding J. *A consumer perspective on quality care: the residents' point of view*. Washington, DC: Coalition for Nursing Home Reform, 1985.
7. Department of Community Services and Health. *Nursing homes and hostels review*. Canberra: Australian Government Publishing Service, 1986.
8. Social Welfare Action Group. A report on the phone-in on abuse of the elderly. Sydney: Australian Consumers' Association, 1982.
9. Pearson A, Hocking S, Mott S, Riggs A. Optimum skills mix for desired resident outcomes in non-government nursing homes. Canberra: Department of Community Services and Health, 1990.
10. Phillips C, Spector WD. Regulating the quality of care in nursing homes in Australia and the United States of America. *Aust Health Rev* 1987; 10: 299–306.
11. Kane RA, Kane RL. *Long-term care: principles, programs, and policies*. New York: Springer, 1987.
12. Lemke S, Moos RH. Quality of residential settings for elderly adults. *J Gerontol* 1986; 41: 268–76.
13. Linn MW, Gurel L, Linn BS. Patient outcome as a measure of quality of nursing home care. *Am J Public Health* 1977; 67: 337–44.
14. Braithwaite VA. *Bound to care*. Sydney: Allen & Unwin, 1990.
15. Robinson JP, Shaver PR, Wrightsman LS. *Measures of personality and social psychological attitudes*. New York: Academic Press, 1991.
16. Braithwaite J, Makkai T, Braithwaite V, Gibson D, Ermann D. The contribution of the standards monitoring process to the quality of nursing home life: a preliminary report. Canberra: Department of Community Services and Health, 1990.
17. Braithwaite J, Braithwaite V, Gibson D, Landau M, Makkai T. The reliability and validity of nursing home standards. Canberra: Department of Health, Housing and Community Services, 1991.
18. Havlicek LL, Peterson NL. Effect of the violation of assumptions upon significance level of the Pearson r. *Psychol Bull* 1977; 84: 373–7.
19. McDonald TA, Bates PW. *Commonwealth nursing home outcome standards—a practical guide to duty of care*. Canberra: Australian Government Publishing Service, 1989.
20. Shearing CD, Ericson RV. Police culture—towards a figurative conception of action. *Br J Sociol* 1991; 42: 481–506.