

Chapter 11

Transferability of Quality of Life Data Collection

If quality of life (QOL) measures based on interviews with residents are to be used to inform quality improvement and quality assurance practices, the collection of data needs to be moved from research interviewers to other professionals in long-term care. The most likely interviewers would be nursing home staff members and long-term care surveyors; the former would either do such interviews as part of their own Continuous Quality Improvement or do them to provide cumulative data as a regulatory requirement for public reporting or to aide in the survey process. It was also thought plausible that staff could do systematic QOL interviews that would be incorporated into resident specific MDS data. Similarly, surveyors might conduct such resident interviews as random spot-checking of data provided by the facility (especially if there were a regulatory requirement for facility personnel to collect the QOL data), as a screening effort in a two-step survey process, or for in-depth focus in facilities where problems seemed to exist. It would also be possible, if designated programmatically, that long-term care ombudsmen might use these tools, though that would call for re-casting the ombudsman program's purpose, which currently is focused on complaint resolution and advocacy at an individual level and a system level. For all these purposes, it was necessary to investigate the process and results of moving data collection from research contexts to practice contexts.

The original contract with University of Minnesota to develop QOL measures called for an empirical test to determine whether facility or surveyor staff applying the tools could achieve comparable results to those gleaned by research interviewers. We conducted such a study in the summer of 2002. We examined the transferability of both the interview protocols and the facility-wide observational protocols. This chapter reports those results.

Transferability to Facility Staff

Theoretical Considerations

Several factors could lead to different experience when application of these tools moves beyond the research context to practitioners on the facility staffs. Some discrepancies between research and non-research applications might be the result of unclear transfer of instructions on how to do the interviews or observations. Some discrepancies might be related to roles and role performance. For example, a structured interview with a resident might be inimical to the usual way the professionals in nursing homes go about their daily work, including their assessments. Staff does not typically spend uninterrupted periods of time talking to residents about their lives, nor do they use a structured tool to do so. They would be more likely to respond to a negative comment by attempting to solve the problem on the spot rather than proceed with interview questions that yield scores.

Another source of discrepancy might relate to the circumstances experienced by both the interviewer and the residents with the switch to facility personnel. For staff members, the change might mean that the staff member was previously acquainted with the resident and already had a point of view about the quality of that resident's life. Staff members might also have had past history communicating with particular residents that would make them better, more sensitive interviewers or, conversely, worse interviewers than a stranger. From a resident's perspective, being interviewed by a staff member (assuming he or she recognized the particular interviewer or generally understood that the interviewer was a staff member) could either lead to a better rapport or, conversely, could lead the resident to censor negative feedback out of courtesy or out of a feeling of intimidation.

CMS built into the scope of work a test of whether nursing personnel differed systematically from psychosocial personnel (such as social workers or activities staff) in their willingness to collect QOL data and their results, compared to research interviewers. The speculation was that perhaps the training or role expectations of the psychosocial personnel might make them better at doing QOL interviews. Besides incorporating disciplinary background into our test, we also varied the training intensity to try to determine whether in-person training was necessary for facility staff to achieve results comparable to those of researchers.

To test the feasibility of having nursing home staff and/or surveyors collect the QOL data we conducted two studies, one where the results of QOL interviews and walk-through observations done by staff were compared to those done by researchers, and a smaller study where the results of QOL interviews and facility observations done by surveyors were compared to those done by researchers. Each used basically the same design, except the variations in the nursing home staff study were greater. The nursing home staff study was designed to answer several questions.

We recognized that some instability over time is inherent in any measure. Some such instability could be due to real change in perceived QOL even between interviews that were held within a week of each other, and some could be due to inherent instability in the tools. We built in a protocol to inquire of respondents whether they perceived their QOL as better, worse, or about the same as a few days ago. We also measured the stability of results when research interviewers did test-retest interviews. Conceptually, the differences between research interviewers and facility personnel should be no greater than the differences found when research personnel do both interviews.

Methods

Research questions. The research questions were as follows:

1. Can nursing home staff reliably collect interview and observational data on their residents?
2. Does nursing staff perform differently from social activity staff?
3. Does in-person training compared to training from materials only affect the performance?
4. How do the interviewers and observers from facility staff react to the experience of doing the interviews?

Sample. We recruited a purposive sample of 8 nursing homes in the Minneapolis-St. Paul area that agreed to participate in the study. Each participating nursing home was asked to identify two nurses and two staff members from social work or activities staff to be directly involved. We randomly assigned the 8 facilities to a training condition. All facility participants were provided with a manual covering interviewing and observational techniques, and detailed discussion of the two tools (the interview and the observation protocol). They also received an audio taped sample of an actual interview with a resident and a correctly completed form based on this sample interview. They were provided with phone numbers where other questions could be answered or confusion clarified. In addition, the personnel from 4 facilities received a 2-day in-person training where the questionnaire was discussed in detail and role-playing took place; the last half-day of the training was designed for the trainees to conduct interviews under observation in a facility. Two dates were established for the in-person training, which was conducted by experienced trainers who were not the research interviewers against whom their performance would be tested.

The sample of residents was drawn randomly from the census of the participating staff. To facilitate the procedures that required multiple interviews of the same resident in randomized order, a University of Minnesota researcher visited the facilities and obtained informed consent from residents to participate in the study.

Procedures. Each nursing home staff member was assigned to interview 6 residents in his or her facility. A researcher interviewed the same resident; interviews were conducted 2-5 days apart, with the order of the interviewer randomly determined. The research interviewers were all experienced interviewers who had participated in Wave 2 data collection for the main study. The interview protocols were identical, and each included a series of questions geared to examine the stability of QOL measures: “If you had been asked these questions a few days ago, would your answers have been likely to be the same or different?” If the response was “different,” they were asked whether their QOL would have been better or worse, and why. Additionally, the staff interviewers were asked to indicate how well they knew the respondent and whether they thought the respondent recognized them to enable us to see whether that familiarity influenced the results. (See Volume 2, Appendix T for questionnaire.)

For observations, a research interviewer accompanied each observer. Facility observers performed two walk-throughs and 2 meal observations, one at breakfast and one at another meal. The route of the walk-through was determined in advance and the pace set by the researcher. The paired observers each completed their own protocol without discussion of their findings. (See Volume 2, Appendix U for observation protocols and Appendix V for related training.)

The questionnaires for the staff participants included open-ended questions about their reactions to performing the interview or the observations (questions that tended to be left blank). We also scheduled debriefing meetings at each of the 8 facilities to discuss with the participants

how they reacted to the experiences of collecting the QOL data. This qualitative component of the study used a general protocol of guiding questions that dealt with any logistical issues in doing the interviews or observations, reactions to and use of training materials and in-person training, specific items that caused them difficulty, whether any of the results surprised them, and their overall reactions to the usefulness and applicability of the procedures.

Data analysis. The data were analyzed to look for both error and bias. Analyses were performed at the item and the domain level. Error was measured by consistency of reporting between the test subject and the U of M staff member. The kappa statistic was used to assess the level of agreement. Regression models were used to identify the contributions of profession and training. Bias was judged by comparing the mean values to see if one group's reports were consistently higher or lower than the U of M staff's. Because respondents could use either a Likert response format or a dichotomous format, we interpolated the dichotomous response pattern into the Likert scale using the same technique we had applied in our earlier work (see Chapter 3).

Compliance with training. In actuality, some staff assigned to the training modality participated only partly in the training sessions. Communication with administrators and between administrators and participating staff was not as effective as it should have been. Some participants were unaware of the training or even of the post-training commitment involved in the study. At the first training session, considerable time was spent informing the participants of the expectation for the 6 interviews and 4 observation sessions, and mollifying them: some had thought they were merely attending a time-limited didactic training on how to interview residents. All participants from one facility missed the entire training, and a special training was arranged for them in their own facility. Results comparing in-person training to training

materials only must be interpreted in the light of the imperfect training experience. On the other hand, the problems in mustering in-person training would probably be exacerbated in real life applications.

Results for QOL Interviews: Staff

We checked for order effects—that is, differences as a result of being the first or second interview. We found no differences and, therefore, merged the analyses.

Table 11.1 shows the general performance in terms of using Likert responses (compared to dichotomous responses) and the rate of missing responses. Personal training was associated with greater use of Likert responses and fewer missing items. Professional background did not affect the patterns in either regard.

Table 11.1. Use of Likert Responses and Missing Responses by Discipline and Training Mode

Interview groups	Average number of Likert responses	Average number of missed responses
Research interviews	49.34	0.56
Nursing staff interviews	44.92	1.09
Psychosocial staff interviews	45.25	1.05
Staff with materials only	45.65	0.91
Staff in-person training	48.61	0.59

To address the question of bias we compared the mean values for the interviewer groups, where a higher score reflects greater QOL. Table 11.2 compares the overall nursing home staff performance to that of the research interviewers. Of the 54 possible comparisons, 8 were significantly different at $p < .05$. If we set a more conservative p value ($< .01$) to compensate for the number of comparisons, then only one of the comparisons was significantly different (an individuality item). The small number of items that yielded significant comparisons suggested that there was little systematic bias on the part of the staff during the interviews. Bolded areas indicate the items that showed significant differences between researcher and staff interviewers.

Table 11.2. Mean QOL Scores for Researcher and Nursing Home Staff Interviewers

Item	Mean		Paired Difference	
	Res	Staff	t	Sig. (2-tailed)
How often are you too cold here	2.707	2.784	-1.094	0.276
How often are you so long in the same position that it hurts	2.696	2.838	-1.795	0.074
How often are you in physical pain	2.541	2.632	-1.312	0.191
How often are you bothered by noise when you are in your room	2.942	3.122	-2.517	0.013
How often are you bothered by noise in other parts of the nursing home	3.109	3.101	0.111	0.912
Do you get a good night's sleep here	3.501	3.555	-1.116	0.266
Is it easy for you to get around in your room by yourself	3.199	3.178	0.317	0.752
Can you easily reach the things that you need	3.267	3.286	-0.085	0.932
If you are anywhere in the nursing home and need a bathroom, can you get to one quickly	3.269	3.118	1.862	0.064
Can you easily reach your toilet articles and things you want to use in your bathroom	3.343	3.430	-1.266	0.207
Can you find a place to be alone when you wish	3.390	3.481	-1.338	0.183
Can you make a private phone call	3.457	3.497	-0.517	0.606
When you have a visitor, can you find a place to visit in private	3.543	3.671	-2.166	0.032
Can you be together in private with another resident (other than your roommate)	3.075	3.241	-1.858	0.065
Do the people who work here knock and wait for a reply before entering your room	3.407	3.441	-0.510	0.611
Do staff here treat you politely	3.762	3.814	-1.352	0.178
Do you feel that you are treated with respect here	3.701	3.683	0.453	0.651
Do staff here handle you gently while giving you care	3.646	3.723	-1.254	0.211
Do staff here respect your modesty	3.679	3.690	-0.234	0.816
Do staff take time to listen to you when you have something you want to say	3.542	3.544	-0.042	0.966
Do you get outdoors	2.768	2.576	1.631	0.105
About how often do you get outdoors	2.272	2.194	1.206	0.230
Do you enjoy the organized activities here at the nursing home	3.343	3.280	1.022	0.308
Outside of religious activities, do you have enjoyable things to do during the weekend	2.997	2.893	1.301	0.195
Despite your health condition, do you give help to others	2.785	2.861	-1.036	0.302
Do the days here seem too long to you	2.424	2.574	-1.996	0.047
Is it easy to make friends at this nursing home	3.198	3.293	-1.548	0.123
Do you consider that any other resident here is your close friend	2.417	2.517	-1.061	0.290
In the last month, have people who worked here stopped just to have a friendly conversation	2.950	2.903	0.582	0.561
Do you consider any staff member here to be your friend	3.182	3.223	-0.566	0.572
Do you think that (name of the facility) tries to make this an easy and pleasant place for families and friends of residents to visit	3.733	3.713	0.439	0.661
Can you go to bed at the time you want	3.627	3.626	0.021	0.983
Can get up in the morning at the time you want	3.063	3.235	-2.490	0.014
Can you decide what clothes to wear	3.756	3.754	0.033	0.974
Have you been successful in making changes in things you do not like	2.769	2.987	-2.323	0.021
Do you like the food at (name of the facility)	3.157	3.196	-0.756	0.451
Do you enjoy mealtimes at (name of the facility)	3.375	3.444	-1.326	0.186
Can you get your favorite foods at (name of the facility)	2.791	2.962	-2.184	0.030
Do you participate in religious activities here	2.870	2.883	-0.199	0.843
Do the religious observances here have personal meaning for you	3.127	3.132	-0.078	0.938
Do you feel your life as a whole has meaning	3.301	3.312	-0.166	0.868

Table 11.2, continued				
Item	Res.	Staff	t.	Sig (2-tailed)
Do you feel at peace	3.514	3.542	-0.576	0.566
Do you feel that your possessions are safe at this nursing home	3.358	3.450	-1.654	0.100
Do your clothes get lost or damaged in the laundry	2.799	2.887	-1.206	0.229
Do you feel confident that you can get help when you need it?	3.508	3.535	-0.528	0.598
If you do not feel well, can you get a nurse or doctor quickly	3.407	3.519	-1.862	0.064
Do you ever feel afraid because of the way you or some other resident is treated	3.323	3.382	-0.794	0.428
Taking all staff together, nurses, aides, and others, does the staff know about your interests	3.135	3.214	-1.054	0.293
Do staff members know you as a person	3.308	3.473	-2.612	0.010
Are people working here interested in your experiences and the things you have done in your life	2.891	2.837	0.782	0.435
Do staff here take your preferences seriously	3.172	3.289	-1.791	0.075
Do residents here know you as a person	3.139	3.151	-0.147	0.884
Are your personal wishes and interests respected here	3.449	3.512	-1.087	0.278

To compare the extent of agreement between the responses obtained by nursing home staff and researchers staff we calculated correlation coefficients. Table 11.3 shows the correlation coefficients for each item. All correlations are significant at $p < .001$, indicating that the UM and staff ratings were significantly related to each other. Seven (7) correlations were above .60, 20 correlations were between .50 and .60, 13 correlations were between .40 and .50, and 14 correlations were between .24 and .40. On the whole, these data indicate that ratings made by research and nursing home staff on the same resident were very similar to each other. This also reflects substantial test/retest reliability.

Examining the level of agreement at the item level is a very stringent test. More typically we would worry about the effect on the domain scores. Table 11.4 shows the correlations at the domain level. The correlations are all significant and are uniformly high (all greater than .60). This indicates that at the scale level, there was a high level of agreement between UM scores and NH staff scores.

Table 11.3. Correlations of Nursing Home Staff and Researchers Interview Data

Item	N	Correlation	Sig.
How often are you too cold here	192	0.576	0.001
How often are you so long in the same position that it hurts	192	0.497	0.001
How often are you in physical pain	189	0.606	0.001
How often are you bothered by noise when you are in your room	192	0.416	0.001
How often are you bothered by noise in other parts of the nursing home	191	0.384	0.001
dcmf6- do you get a good night's sleep here	192	0.544	0.001
Is it easy for you to get around in your room by yourself	192	0.649	0.001
Can you easily reach the things that you need	190	0.463	0.001
If you are anywhere in the nursing home and need a bathroom, can you get to one quickly	176	0.439	0.001
Can you easily reach your toilet articles and things you want to use in your bathroom	187	0.509	0.001
Do you do as much to take care of your own things and your room as you can and want	192	0.438	0.001
Can you find a place to be alone when you wish	184	0.429	0.001
Can you make a private phone call	182	0.513	0.001
When you have a visitor, can you find a place to visit in private	189	0.364	0.001
Can you be together in private with another resident (other than your roommate)	174	0.313	0.001
Do the people who work here knock and wait for a reply before entering your room	192	0.397	0.001
Do staff here treat you politely	191	0.380	0.001
Do you feel that your are treated with respect here	192	0.550	0.001
Do staff here handle you gently while giving you care	188	0.414	0.001
Do staff here respect your modesty	186	0.426	0.001
Do staff take time to listen to you when you have something you want to say	190	0.566	0.001
Do you get outdoors	189	0.393	0.001
About how often do you get outdoors	184	0.650	0.001
Do you enjoy the organized activities here at the nursing home	183	0.586	0.001
Outside of religious activities, do you have enjoyable things to do during the weekend	181	0.449	0.001
Despite your health condition, do you give help to others	183	0.551	0.001
Do the days here seem too long to you	191	0.555	0.001
Is it easy to make friends at this nursing home	191	0.567	0.001
Do you consider that any other resident here is your close friend	180	0.646	0.001
In the last month, have people who worked here stopped just to have a friendly conversation	189	0.354	0.001
Do you consider any staff member here to be your friend	190	0.474	0.001
Do you think that (name of the facility) tries to make this an easy and pleasant place for families and friends of residents to visit	189	0.277	0.001
Can you go to bed at the time you want	191	0.552	0.001
Can you get up in the morning at the time you want	189	0.596	0.001
Can you decide what clothes to wear	188	0.340	0.001
Have you been successful in making changes in things you do not like	164	0.323	0.001
Do you like the food at (name of the facility)	190	0.705	0.001
Do you enjoy mealtimes at (name of the facility)	189	0.577	0.001
Can you get your favorite foods at (name of the facility)	179	0.477	0.001
Do you participate in religious activities here	191	0.678	0.001
Do the religious observances here have personal meaning for you	182	0.579	0.001
Do you feel your life as a whole has meaning	179	0.511	0.001
Do you feel at peace	187	0.571	0.001

Table 11.3., continued			
Item	N	Correlation	Sig.
Do you feel that your possessions are safe at this nursing home	189	0.616	0.001
Do your clothes get lost or damaged in the laundry	178	0.574	0.001
Do you feel confident that you can get help when you need it?	187	0.539	0.001
If you do not feel well, can you get a nurse or doctor quickly	180	0.453	0.001
Do you ever feel afraid because of the way you or some other resident is treated?	189	0.241	0.001
Taking all staff together, nurses, aides, and others, does the staff know about your interests	177	0.372	0.001
Do staff members know you as a person	188	0.479	0.001
Are people working here interested in your experiences and the things you have done in your life	187	0.573	0.001
Do staff here take your preferences seriously	180	0.523	0.001
Do residents here know you as a person	176	0.391	0.001
Are your personal wishes and interests respected here	188	0.392	0.001

Table 11.4. Correlations between Researcher and Staff Interviewers by Domain Scores

QOL Domain	T	Significance
Comfort	0.649	0.001
Functional competence	0.716	0.001
Privacy	0.554	0.001
Dignity	0.726	0.001
Meaningful activity	0.663	0.001
Relationships	0.697	0.001
Autonomy	0.619	0.001
Enjoyment	0.700	0.001
Spiritual well being	0.748	0.001
Security	0.695	0.001
Individuality	0.742	0.001

Table 11.5 returns to the question of bias and shows the mean score for the various domains by interviewer group. These findings suggest that there is some indication of bias. Of the 11 possible comparisons, 5 were significant at $p < .05$ and 2 were significant at $p < .01$. All of these significant differences are in the same direction, with the nursing home staff yielding scores that reflect higher levels of well-being.

Table 11.5. Mean Differences between Interviewers by Domain Scores

	Researchers	Staff	t	Sig
Comfort	2.917	3.008	-2.810	0.005
Functional competency	3.282	3.301	-0.490	0.625
Privacy	3.372	3.463	-2.365	0.019
Dignity	3.666	3.692	-1.110	0.268
Meaningful activity	2.827	2.762	1.655	0.100
Relationships	3.088	3.131	-1.167	0.245
Autonomy	3.302	3.413	-3.126	0.002
Enjoyment	3.105	3.203	-2.286	0.023
Spiritual Well Being	3.194	3.214	-0.594	0.553
Security	3.295	3.360	-2.181	0.030
Individuality	3.166	3.232	-1.937	0.054

Table 11.6 examines the effects of training and profession on the extent of bias. It compares the mean nursing home interviewer value for each domain with the comparable U of M value. The analyses use separate regression models to compare staff samples with matched researchers for each analysis. The regression adjusts for training type, staff role and interview order (omitting the specific element being compared). The most significant differences are between researchers and staff who received only materials rather than in-person training. For most of these differences, the staff reported a higher QOL than did the researchers (meaningful activity is the exception). This suggests that the significant differences in the previous table (comparing researchers to staff member) can be attributed to a positivity bias on the part of the staff who received training from materials only.

When all the variables are combined in a single regression model (not shown), staff role and interview role do not show significance in terms of predicting domain scores reported by research interviewers. For training type, 9 of 11 domains showed no significant difference between scores of staffs who received material training and those who received in-person training. In two domains (comfort and spiritual well-being), training type played a role

predicting domain scores by research interviewers. Staff with in-person training reported higher domain scores than did the staff who received training materials only in these two domains.

Table 11.6. Mean Values of Domain Scores by Nursing Home Staff Characteristics

	Staff Training				Researchers	Nurses	Researchers	Psychosocial staff
	Researchers	Materials	Researchers	In-person				
Comfort	2.841**	3.005**	2.993	3.011	2.927	2.995	2.906*	3.023*
Functional competency	3.214	3.259	3.348	3.343	3.296	3.308	3.265	3.294
Privacy	3.339*	3.454*	3.403	3.471	3.367	3.438	3.376	3.491
Dignity	3.622	3.675	3.710	3.708	3.732	3.771	3.592	3.604
Meaningful activity	2.820*	2.708*	2.834	2.815	2.870	2.776	2.779	2.745
Relationships	3.121	3.108	3.055	3.154	3.063	3.104	3.116	3.162
Autonomy	3.249**	3.399**	3.354	3.427	3.282*	3.402*	3.323	3.424
Enjoyment	3.053*	3.195*	3.152	3.212	3.140	3.252	3.062	3.145
Spiritual well being	3.133	3.220	3.252	3.208	3.173	3.186	3.217	3.245
Security	3.259	3.327	3.332	3.393	3.356	3.410	3.229	3.305
Individuality	3.209	3.292	3.124	3.174	3.195	3.246	3.131	3.215

* indicates a pair of means that differ significantly from each other at $p < .05$.

** indicates a pair of means that differ significantly from each other as $p < .01$

Results of Facility Level Observation: Staff

The observations were divided into two portions for analysis: meal observations and walkthrough observations. There were 124 simultaneous paired observations for meals, each observation containing 16 elements. Table 11.7 examines the mean reported rates for each item to look for evidence of bias. Of the 16 items, 5 yielded significant differences at the $p < .05$ level. With this many comparisons, however, we should set a more conservative p level. If we move to $p < .01$, then only two of the 16 items are significant (items #11 and 15). In both cases, the staff was more likely to report seeing a negative event/behavior (staff were more likely to see staff feeding more than one resident at a time, and were more likely to reporting hearing noxious noise levels).

The potential effects of training are explored in Table 11.8, which contrasts the nursing home staff mean report scores and the U of M scores, broken down by type of training. Focusing on the last line of the table, the -.020 value indicates that staff who had only materials for training had a higher score compared to researchers by 2% when collapsing across all 16 items than those who had more extensive training. The -.014 indicates that the staff that had in-person training had a higher score by 1% compared to researchers when collapsing across all 16 items. Neither effect is very large. When looking across all items, the amount of bias is very small. Looking at the items individually, two items were more likely to be seen by staff with materials training (2 & 15), and two items were more likely to be seen by staff who had in-person training (11&12). This pattern suggests that there is no systematic bias due to training.

Table 11.7. Mean Meal Observation Scores for Researchers and Nursing Home Staff

Meal Observation	Mean		Paired Difference	
	Researcher	Staff	T	sig
M01 Negative resident expression	0.463	0.390	1.448	0.150
M02 Staff move resident's wheelchair without asking or discussing	0.163	0.236	-2.217	0.028
M03 Staff answer questions or fulfill requests	0.919	0.855	1.719	0.088
M04 Staff talk over resident's head/s	0.179	0.260	-1.910	0.058
M05 Staff discuss resident's private business in public	0.049	0.065	-0.706	0.482
M06 Staff impose restriction	0.065	0.065	0.000	1.000
M07 Staff speak roughly or threatening	0.049	0.041	0.332	0.740
M08 Resident heard laughing	0.621	0.589	0.601	0.549
M09 Resident not talking at meals	0.629	0.653	-0.403	0.688
M10 Resident fed messily	0.056	0.056	0.000	1.000
M11 Staff feeding more than one resident at a time	0.226	0.411	-4.132	0.001
M12 Tablecloths or placemats	0.403	0.363	2.273	0.025
M13 Centerpiece on each table	0.202	0.258	-2.141	0.034
M14 Pleasant odors	0.734	0.645	1.519	0.131
M15 Noxious noise levels	0.032	0.153	-3.604	0.001
M16 Unpleasant odors	0.000	0.016	-1.420	0.158

Note: Bolded values are statistically significant.

Table 11.8. Mean Meal Observation Scores for Staff and Researchers by Training Mode

	Materials Training		Researcher Staff Difference	In-person Training		Researcher Staff Difference
	Researchers	Staff		Researchers	Staff	
M01 Negative resident expression	0.444	0.397	0.047	0.483	0.383	0.100
M02 Staff move resident's wheelchair without asking or discussing	0.143*	0.238*	-0.095	0.183	0.233	-0.050
M03 Staff answer questions or fulfill requests	0.906	0.859	0.047	0.933	0.850	0.083
M04 Staff talk over resident's head/s	0.111	0.190	-0.079	0.250	0.333	-0.083
M05 Staff discuss resident's private business in public	0.032	0.048	-0.016	0.067	0.083	-0.016
M06 Staff impose restriction	0.048	0.079	-0.031	0.083	0.050	0.033
M07 Staff speak roughly or threatening	0.048	0.032	0.016	0.051	0.051	0.001
M08 Resident heard laughing	0.563	0.563	0.001	0.683	0.617	0.066
M09 Resident not talking at meals	0.750	0.719	0.031	0.500	0.583	-0.083
M10 Resident fed messily	0.031	0.047	-0.016	0.083	0.067	0.016
M11 Staff feeding more than one resident at a time	0.219	0.344	-0.125	0.233***	0.483***	-0.250
M12 Tablecloths or placemats	0.453	0.453	0.001	0.35*	0.267*	0.083
M13 Centerpiece on each table	0.188	0.250	-0.062	0.217	0.267	-0.050
M14 Pleasant odors	0.734	0.578	0.156	0.733	0.717	0.016
M15 Noxious noise levels	0.047**	0.203**	-0.156	0.017	0.100	-0.083
M16 Unpleasant odors	0.000	0.031	-0.031	0.000	0.000	0.001
Average Difference Across All Items			-0.020			-0.014

*pairs showing significant difference of the mean between two observers at $p < .05$

** pairs showing significant difference of the mean between two observers at $p < .01$

*** pairs showing significant difference of the mean between two observers at $p < .001$

The potential effects of profession are explored in Table 11.9, which contrasts the nursing home staff mean report scores and the researcher scores, broken down by nursing or social work. Once again, focusing on the last line of the table, the -.243 value indicates that nurses were more likely to report seeing the behaviors than the research interviewers. The significant comparisons

at the item level indicate that nurses were more likely to see item #11 (staff feeding more than one resident at a time) and #15 (noxious noise levels). Interestingly, nurses were less likely to report seeing #12 (tablecloths or placemats). At the same time, the -.141 indicates that social workers were more likely to report seeing the behaviors than the research interviewers. The significant comparisons at the item level indicate that for items 11 (staff feeding more than one resident at a time), 13 (centerpiece on each table), and 15 (noxious noise levels), the social workers were more likely to report seeing the behavior. For item #1 (negative resident expression) the pattern was reversed, with research observers reporting the behavior more frequently. Taken together, these analyses present little evidence of a systematic bias, due either to training type or role of the nursing home staff observer (psychosocial staff vs. nurse).

The extent of agreement between nursing home staff and U of M was assessed using Kappa statistics. Table 11.10 shows the level of concordance. Of the 16 possible kappas calculated, 10 were significant. No kappa could be calculated for item #16 because unpleasant odors were never observed during meals by UM or staff observers. An alternate way to evaluate kappas is that kappas that are greater than 0.75 indicate excellent agreement. Kappas ranging from 0.4 to 0.75 indicate good agreement. Kappas ranging from 0 to 0.4 indicate marginal agreement (Landis and Koch, 1977). Using this guide, 2 of our significant kappas indicate excellent agreement, 1 indicates good agreement, and 10 indicate marginal agreement.

The effects of training and profession are shown in Table 11.11. Neither training status nor profession seems to influence the level of agreement between nursing home staff and U of M ratings. The same steps were followed with the rest of the walkthrough. Table 11.12 examines possible bias. Four out of 18 items showed significant differences between researcher and staff observers during walkthrough observation. With this many comparisons, however, we should

expect a few differences, and should lower our alpha level to the more conservative .01. Using this alpha-level, only one of the 18 items yielded a significant difference #13. Three of the items significant at alpha = .05 could be considered negative in nature (items 3, 5, and 7). For these items, staff members were more likely to report seeing the behavior. The remaining item was positive in nature (item 13), and this item (spontaneous activity) was less likely to be reported by the staff. Given that only 4 of the 18 comparisons were significant at alpha = .05, and only 1 is significant at alpha = .01, and that the direction of the significant differences (with the UM observers giving more favorable ratings), we can tentatively conclude that the staff do not have a positivity bias.

Table 11.9. Mean Meal Observation Scores for Staff and Researchers by Staff Profession

	Researchers	Nurses	Researcher/ nurse staff differences	Researchers	Psychosocial Staff	Researcher/ psychosocial staff differences
M01 Negative resident expression	0.419	0.435	-.016	0.508*	0.344*	.164
M02 Staff move resident's wheelchair without asking or discussing	0.258	0.355	-.097	0.066	0.115	-.049
M03 Staff answer questions or fulfill requests	0.919	0.806	.113	0.919	0.903	.016
M04 Staff talk over resident's head/s	0.145	0.210	-.065	0.213	0.311	-.098
M05 Staff discuss resident's private business in public	0.048	0.081	-.033	0.049	0.049	0
M06 Staff impose restriction	0.129	0.097	.032	0.000	0.033	-.033
M07 Staff speak roughly or threatening	0.049	0.082	-.033	0.049	0.000	.049
M08 Resident heard laughing	0.581	0.597	-.016	0.661	0.581	.08
M09 Resident not talking at meals	0.661	0.661	0	0.597	0.645	-.046
M10 Resident fed messily	0.081	0.065	.016	0.032	0.048	-.016
M11 Staff feeding more than one resident at a time	0.274***	0.516***	-.242	0.177*	0.306*	-.129
M12 Tablecloths or placemats	0.355*	0.290*	.065	0.452	0.435	.017
M13 Centerpiece on each table	0.210	0.226	-.016	0.194*	0.290*	-.096
M14 Pleasant odors	0.726	0.710	.016	0.742	0.581	.161
M15 Noxious noise levels	0.032*	0.129*	-.097	0.032**	0.177**	-.145
M16 Unpleasant odors	0.000	0.016	-.016	0.000	0.016	-.016
Average Difference Across All Items			-.243			-0.141

*pairs showing significant difference of the mean between two observers at $p < .05$
** pairs showing significant difference of the mean between two observers at $p < .01$
*** pairs showing significant difference of the mean between two observers at $p < .001$

Table 11.10. Extent of Agreement on Meal Observations between Researchers and Staff

Item	Kappa
m01 negative resident expression	0.356***
m02 Staff move resident's wheelchair without asking or discussing	0.57***
m03 Staff answer questions or fulfill requests	0.123
m04 Staff talk over resident's head/s	0.342***
m05 Staff discuss resident's private business in public	0.395***
m06 Staff impose restriction	0.332***
m07 Staff speak roughly or threatening	0.144
m08 Resident heard laughing	0.258**
m09 Residents not talking at meals	0.037
m10 Resident fed messily	0.243**
m11 Staff feeding more than one resident at a time	0.375***
m12 Tablecloths or placemats	0.915***
m13 Centerpiece on each table	0.751***
m14 Pleasant odors	0.011
m15 Noxious noise levels	0.127
m16 Unpleasant odors	#

- no statistics were computed because this observation never occurred.

p<0.05, ** -p<0.01, *** p<0.001

Table 11.11. Effect of Training Mode and Profession on the Extent of Agreement on Meal Observations between Researchers and Staff

Item	Type of Training		Staff Discipline	
	Material	In-person	Nurse	Psychosocial
M01_1(Negative resident expression)	0.318*	0.395**	0.308*	0.413**
M02_1(Staff move resident's wheelchair without asking or discussing)	0.594***	0.547***	0.625***	0.306*
M03_1(Staff answer questions or fulfil requests)	0.174	0.068	0.137	0.103
M04_1(Staff talk over resident's head/s)	0.327**	0.32*	0.122	0.498***
M05_1(Staff discuss resident's private business in public)	0.376**	0.4**	0.468***	0.299*
M06_1(Staff impose restriction)	0.468***	0.2	0.358**	#
M07_1(Staff speak roughly or threatening)	-0.04	0.298*	0.201	#
M08_1(Resident heard laughing)	0.365**	0.125	0.234	0.285*
M09_1(Resident not talking at meals)	0.04	-0.033	0.064	0.009
M10_1(Resident fed messily)	0.377**	0.16	0.162	0.376**
M11_1(Staff feeding more than one resident at a time)	0.242*	0.491***	0.396***	0.312**
M12_1(Tablecloths or placemats)	1***	0.806***	0.853***	0.967***
M13_1(Centerpiece on each table)	0.727***	0.773***	0.858***	0.653***
M14_1(Pleasant odors)	-0.012	0.039	0.005	0.02
M15_1(Noxious noise levels)	0.188*	-0.029	0.156	0.105
M16_1(Unpleasant odors)	#	#	#	#

- no statistics were computed because this observation never occurred.

p<0.05, ** -p<0.01, *** p<0.001

Table 11.12. Differences in Mean Ratings of Walkthrough Observations
between Researchers and Staff

Items	Mean		1. Paired Difference	
	Researchers	Staff	T	Sig. (2-tailed)
W01 negative resident expression	0.387	0.355	0.424	0.673
W02 resident in distress	0.177	0.161	0.299	0.766
W03 staff move resident's wheelchair without asking or discussing	0.081	0.177	-2.185	0.033
W04 staff answer questions or fulfill requests	0.677	0.645	0.424	0.673
W05 staff talk over resident's head(s)	0.016	0.081	-2.051	0.045
W06 resident's body uncovered	0.097	0.145	-1.761	0.083
W07 staff discuss resident's private business in public	0.000	0.065	-2.051	0.045
W08 staff impose restriction	0.016	0.000	1.000	0.321
W09 staff speak roughly or threatening	0.000	0.016	-1.000	0.321
W10 resident heard laughing	0.623	0.565	0.893	0.375
W11 resident disengaged at nursing station	0.661	0.661	0.000	1.000
W12 resident is engaged in a solo activity	0.935	0.855	1.524	0.133
W13 two or more residents in spontaneous activity	0.565	0.435	2.650	0.010
W14 organized activity observed	0.629	0.645	-0.444	0.658
W15 disengaged during organized activity	0.403	0.387	0.331	0.742
W16 noxious noise levels	0.194	0.226	-0.574	0.568
W17 unpleasant odors	0.226	0.339	-1.627	0.109
W18 clutter in hallways	0.726	0.774	-0.830	0.410

The effects of training on bias are examined in Table 11.13. As shown in earlier tables, the difference between nursing home staff and U of M ratings are shown. Focusing on the last line of the table, the .012 indicates that collapsing across all items, the U of M observers were very slightly more likely to report seeing the behaviors than staff with materials-only training. The -.026 indicates that collapsing across all items, the research observers were very slightly less likely to report seeing the behaviors than staff with in-person. Both of these numbers are very close to zero, however, suggesting that there was little bias on the part of the staff, and that the bias did not really differ according to training status.

Table 11.13: Mean Ratings of Walk-through Observations By Training

Items	Material Training			Personal Training		
	Researchers	Staff	Researcher-staff difference	Researchers	Staff	Researcher-staff difference
Negative resident expression	0.563	0.438	0.125	0.200	0.267	-0.067
Resident in distress	0.250	0.219	0.031	0.100	0.100	0.001
Staff move resident's wheelchair without asking or discussing	0.125*	0.250*	-0.125	0.033	0.100	-0.067
Staff answer questions or fulfill requests.	0.625	0.656	-0.031	0.733	0.633	0.100
Staff talk over resident's head(s)	0.000	0.063	-0.063	0.033	0.100	-0.067
Resident's body uncovered.	0.125	0.125	0.001	0.067	0.167	-0.100
Staff discuss resident's private business in public	0.000	0.031	-0.031	0.000	0.100	-0.100
Staff impose a restriction.	0.000	0.000	0.001	0.033	0.000	0.033
Staff speak roughly or threateningly.	0.000	0.000	0.001	0.000	0.033	-0.033
Resident heard laughing.	0.656	0.594	0.062	0.586	0.517	0.069
Resident disengaged at nursing station.	0.625	0.500	0.125	0.700*	0.833*	-0.133
Resident is engaged in a solo activity	0.969*	0.781*	0.188	0.900	0.933	-0.033
Two or more residents in spontaneous activity	0.594	0.375	0.219	0.533	0.500	0.033
Organized activity is observed.	0.688	0.688	0.001	0.567	0.600	-0.033
Resident disengaged during organized activity.	0.469	0.406	0.063	0.333	0.367	-0.034
Noxious noise levels.	0.125	0.219	-0.094	0.267	0.233	0.034
Unpleasant odors.	0.188	0.344	-0.156	0.267	0.333	-0.066
Clutter in the hallways.	0.625	0.719	-0.094	0.833	0.833	0.001
Average Difference Across All Items			.012			-.026

* pairs showing significant difference of the mean between two observers.

Table 11.14 shows the same analysis for the effect of profession. Focusing on the last line of the table, the $-.038$ indicates that collapsing across all items, the UM observers were very slightly less likely to report seeing the behaviors than nurses. The $.028$ indicates that collapsing across all items, the UM observers were very slightly more likely to report seeing the behaviors than social workers. Both of these numbers are very close to zero, however, suggesting that there was little bias on the part of the staff, and that the bias did not really differ according to staff role. Taken together, the data reveal little evidence of bias. Training type and staff role did not seem to influence the magnitude of the bias.

The level of agreement in the walk-through observations is shown in Table 11.15. Of the 18 possible Kappas, only 15 could be calculated. For item #7 and #9, UM observers never saw staff discuss resident's private business in public or speak roughly or threatening. Thus w07 and w09 are constants and Kappas can not be calculated. For item #8, staff observers never saw restriction imposed by staff and thus sw08 is a constant and Kappa can not be calculated. Of the 15 that could be calculated, 12 items showed statistically significant agreement. Using the standard outlined proposed by Landis and Koch (1977), 2 of the 12 items showed excellent agreement, 6 items showed good agreement and 4 showed marginal agreement.

Table 11.14. Mean Ratings of Walk-through Observations by Education

	Researchers	Nurses	Research Staff Difference	Researchers	Social Worker	Research-Staff Difference
Negative resident expression	0.438	0.500	-0.062	0.333	0.200	0.133
Resident in distress	0.250	0.156	0.094	0.100	0.167	-0.067
Staff move resident's wheelchair without asking or discussing	0.063*	0.188*	-0.125	0.100	0.167	-0.067
Staff answer questions or fulfill requests.	0.719	0.719	0.001	0.633	0.567	0.066
Staff talk over resident's head(s)	0.031	0.125	-0.094	0.001	0.033	-0.033
Resident's body uncovered.	0.156	0.219	-0.063	0.033	0.067	-0.034
Staff discuss resident's private business in public	0.000	0.063	-0.063	0.001	0.067	-0.067
Staff impose a restriction.	0.031	0.000	0.031	0.001	0.001	0.001
Staff speak roughly or threateningly.	0.000	0.000	0.001	0.001	0.033	-0.033
Resident heard laughing.	0.719	0.750	-0.031	0.517	0.345	0.172
Resident disengaged at nursing station.	0.594	0.688	-0.094	0.733	0.633	0.100
Resident is engaged in a solo activity	0.969	0.906	0.063	0.900	0.800	0.100
Two or more residents in spontaneous activity	0.563	0.469	0.094	0.567*	0.400*	0.167
Organized activity is observed.	0.719	0.719	0.001	0.533	0.567	-0.034
Resident disengaged during organized activity.	0.406	0.406	0.001	0.400	0.367	0.033
Noxious noise levels.	0.219	0.281	-0.062	0.167	0.167	0.000
Unpleasant odors.	0.188	0.375	-0.187	0.267	0.300	-0.033
Clutter in the hallways.	0.688*	0.875*	-0.187	0.767	0.667	0.100
Average Difference Across All Items			-0.038			0.028

Bolded values are statistically significant.

Table 11.15. Extent of Concordance between Nursing Home Staff Observers and Research Observers for Walkthrough Observations

Item	Kappa
W01 negative resident expression	0.241
W02 resident in distress	0.370**
W03 staff move resident's wheelchair without asking or discussing	0.438***
W04 staff answer questions or fulfill requests	0.209
W05 staff talk over resident's head/s	0.315**
W06 resident's body uncovered	0.774***
W07 staff discuss resident's private business in public	#
W08 staff impose restriction	#
W09 staff speak roughly or threatening	#
W10 resident heard laughing	0.325*
W11 resident disengaged at nursing station	0.424**
W12 resident is in solo activity	0.071
W13 spontaneous activity	0.683***
W14 organized activity	0.826***
W15 disengaged during organized activity	0.696***
W16 noxious noise levels	0.417**
W17 unpleasant odors	0.255*
W18 clutter in hallways	0.443***

Either the U of MN researchers or the staff did not observe the item at all so Kappa could not be calculated.

The effects of profession and training are examined in Table 11.16. There is no evidence that training status or staff role influences the amount of agreement between researcher observers and staff ratings. When training status, staff role and interview order were combined in a regression model that used staff scores as the dependent variable and included U of M scores as another independent variable, the only significant effect was that training was associated with differences in the comfort and spiritual well-being scores.

Table 11.16. Extent of Concordance between Nursing Home Staff Observers and research Observers for Walk-Through Observations by Training and Profession

Item	Training		Profession	
	Materials	In-Person	Nurse	SW
W01_1negative resident expression	0.138	0.259	0.125	0.333
W02_1resident in distress	0.391*	0.259	0.333*	0.429*
W03_1staff move resident's wheelchair without asking or discussing	0.600***	-0.053	0.448**	0.429*
W04_1staff answer questions or fulfill requests	0.254	0.162	-0.082	0.447*
W05_1staff talk over resident's head/s	#	0.474**	0.368**	#
W06_1resident's body uncovered	1***	0.526**	0.796**	0.651***
W07_1staff discuss resident's private business in public	#	#	#	#
W08_1staff impose restriction	#	#	#	#
W09_1staff speak roughly or threatening	#	#	#	#
W10_1resident heard laughing	0.203	0.395*	0.280	0.249
W11_1resident disengaged at nursing station	0.250	0.636***	0.261	0.619***
W12_1resident is in solo activity	-0.058	0.348	-0.049	0.103
W13_1spontaneous activity	0.582***	0.800***	0.690**	0.675***
W14_1organized activity	0.709***	0.932***	0.845**	0.798***
W15_1disengaged during organized activity	0.747***	0.634***	0.611**	0.789***
W16_1noxious noise levels	0.243	0.556**	0.668**	0.040
W17_1unpleasant odors	0.301	0.211	0.259	0.262
W18_1clutter in hallways	0.368*	0.520**	0.304*	0.595**

Either the U of MN researchers or the staff did not observe the item at all so Kappa could not be calculated.

We found no difference in congruence with research interviewers if the staff member knew the resident well (not tabled) Few residents said that their QOL changed in the last few days; the group was too small to analyze statistically. Typically, if the resident said he/she previously had a better or worse QOL, the reason given was their health status or the departure or return of a favorite staff member.

Surveyors Results

Results on Resident Interviews: Surveyors

The same procedure was followed in analyzing the data for the surveyors. Table 11.17 examines bias by comparing the mean values for each question. Of the 54 possible comparisons, 3 were significant at $p < .05$. If we set a more conservative p value of less than or equal to .01 (to compensate for the number of comparisons), then only one of the comparisons was significant (item 3 in privacy). The bolded cells are statistically significant. Given the small number of items that yielded significant comparisons, we conclude that there is very little systematic bias on the part of the surveyor during the interview.

Bias is examined at the domain level in Table 11.18. Of the 11 possible comparisons, only one was significant at $p < .05$. We can conclude that there is no significant difference between research interviewers and surveyors. The extent of agreement between surveyors and researchers is shown in Table 11.19. Out of 54 items 41 showed significant correlations between research interviewers and surveyors. On the whole, these data indicate that ratings made by researchers and surveyors on the same resident were very similar to each other.

Table 11.17. Mean Values for Interview Questions for Researchers and Surveyors

Item	Researchers	Surveyor	t.	Sig
How often are you too cold here	2.913	3.017	-0.781	0.439
How often are you so long in the same position that it hurts	2.677	2.830	-0.869	0.389
How often are you in physical pain	2.646	2.502	1.035	0.306
How often are you bothered by noise when you are in your room	2.932	2.989	-0.374	0.710
How often are you bothered by noise in other parts of the nursing home	3.058	3.115	-0.364	0.717
Do you get a good night's sleep here	3.400	3.413	-0.108	0.914
Is it easy for you to get around in your room by yourself	3.060	3.008	0.337	0.738
Can you easily reach the things that you need	3.227	3.317	-0.823	0.415
If you are anywhere in the nursing home and need a bathroom, can you get to one quickly	2.830	3.230	-2.162	0.036
Can you easily reach your toilet articles and things you want to use in your bathroom	2.948	3.030	-0.496	0.622
Do you do as much to take care of your own things and your room as you can and want	3.367	3.183	1.254	0.216
Can you find a place to be alone when you wish	3.372	3.334	0.228	0.820
Can you make a private phone call	3.085	3.348	-1.355	0.182
When you have a visitor, can you find a place to visit in private	3.366	3.723	-3.296	0.002
Can you be together in private with another resident (other than your roommate)	2.900	3.024	-0.571	0.571
Do the people who work here knock and wait for a reply before entering your room	3.079	3.271	-1.160	0.252
Do staff here treat you politely	3.838	3.804	0.416	0.680
Do you feel that you are treated with respect here	3.740	3.779	-0.419	0.677
Do staff here handle you gently while giving you care	3.671	3.717	-0.466	0.643
Do staff here respect your modesty	3.677	3.685	-0.102	0.919
Do staff take time to listen when you have something you want to say	3.344	3.508	-1.179	0.244
Do you get outdoors	2.851	2.945	-0.423	0.674
About how often do you get outdoors	2.554	2.518	0.388	0.700
Do you enjoy the organized activities here at the nursing home	3.116	3.149	-0.228	0.821
Outside of religious activities, do you have enjoyable things to do during the weekend	3.066	3.202	-0.891	0.378
Despite your health condition, do you give help to others	2.555	2.489	0.385	0.702
Do the days here seem too long to you	2.587	2.619	-0.214	0.831
Is it easy to make friends at this nursing home	3.520	3.433	0.650	0.519
Do you consider that any other resident here is your close friend	2.630	3.152	-2.429	0.019
In the last month, have people who worked here stopped just to have a friendly conversation	3.039	3.011	0.205	0.838
Do you consider any staff member here to be your friend	3.379	3.306	0.564	0.575
Do you think that (name of the facility) tries to make this an easy and pleasant place for families and friends of residents to visit	3.698	3.760	-0.990	0.328
Can you go to bed at the time you want	3.592	3.600	-0.071	0.943
Can get up in the morning at the time you want	2.846	2.944	-0.572	0.570
Can you decide what clothes to wear	3.757	3.717	0.458	0.649
Have you been successful in making changes in things you do not like	3.030	2.822	0.998	0.325

Table 11.17 cont.	Item	Researcher	Surveyor	T	Sig.
	Do you like the food at (name of the facility)	3.135	3.165	-0.256	0.799
	Do you enjoy mealtimes at (name of the facility)	3.525	3.356	1.405	0.166
	Can you get your favorite foods at (name of the facility)	2.641	2.829	-1.248	0.219
	Do you participate in religious activities here	3.188	3.133	0.429	0.670
	Do the religious observances here have personal meaning for you	3.374	3.377	-0.014	0.989
	Do you feel your life as a whole has meaning	3.320	3.204	0.740	0.463
	Do you feel at peace	3.515	3.664	-1.036	0.306
	Do you feel that your possessions are safe at this nursing home	3.446	3.683	-1.971	0.055
	Do your clothes get lost or damaged in the laundry	3.098	3.082	0.108	0.915
	Do you feel confident that you can get help when you need it?	3.626	3.719	-0.873	0.387
	If you do not feel well, can you get a nurse or doctor quickly	3.393	3.613	-1.573	0.123
	Do you ever feel afraid because of the way you or some other resident is treated	3.587	3.557	0.239	0.812
	Taking all staff together, nurses, aides, and others, does the staff know about your interests	3.450	3.320	0.832	0.410
	Do staff members know you as a person	3.531	3.544	-0.091	0.928
	Are people working here interested in your experiences and the things you have done in your life	2.981	3.317	-2.279	0.028
	Do staff here take your preferences seriously	3.252	3.398	-0.959	0.343
	Do residents here know you as a person	3.190	2.908	1.459	0.153
	Are your personal wishes and interests respected here	3.471	3.621	-1.146	0.258

*Bold values are statistically significant.

Table 11.18. Mean Domain Scores for Researchers and Surveyors

Domain	Researchers	Surveyor	T	Sig. (2-tailed)
Comfort	2.927	2.971	-0.669	0.506
Functional competency	3.083	3.148	-0.816	0.419
Privacy	3.165	3.350	-2.283	0.027
Dignity	3.652	3.689	-0.542	0.590
Meaningful activity	2.813	2.864	-0.581	0.564
Relationships	3.232	3.340	-1.422	0.162
Autonomy	3.316	3.301	0.191	0.849
Enjoyment	3.107	3.092	0.191	0.849
Spiritual well being	3.384	3.360	0.257	0.798
Security	3.454	3.552	-1.329	0.190
Individuality	3.339	3.369	-0.358	0.722

*Bold values are statistically significant.

Table 11.19. Level of Agreement for QOL Questions between Research Interviewers and Surveyors

Item	N	Correlation	Sig.
How often are you too cold here	48	0.607	0.001
How often are you so long in the same position that it hurts	47	0.444	0.002
How often are you in physical pain	48	0.570	0.001
How often are you bothered by noise when you are in your room	47	0.560	0.001
How often are you bothered by noise in other parts of the nursing home	48	0.453	0.001
Do you get a good night's sleep here	47	0.608	0.001
Is it easy for you to get around in your room by yourself	48	0.615	0.001
Can you easily reach the things that you need	48	0.714	0.001
If you are anywhere in the nursing home and need a bathroom, can you get to one quickly	43	0.427	0.004
Can you easily reach your toilet articles and things you want to use in your bathroom	46	0.540	0.001
Do you do as much to take care of your own things and your room as you can and want	46	0.506	0.001
Can you find a place to be alone when you wish	47	0.279	0.058
Can you make a private phone call	48	0.292	0.044
When you have a visitor, can you find a place to visit in private	44	0.460	0.002
Can you be together in private with another resident (other than your roommate)	41	0.063	0.695
Do the people who work here knock and wait for a reply before entering your room	48	0.394	0.006
Do staff here treat you politely	48	0.287	0.048
Do you feel that you are treated with respect here	47	0.353	0.015
Do staff here handle you gently while giving you care	48	0.236	0.107
Do staff here respect your modesty	47	0.423	0.003
Do staff take time to listen to you when you have something you want to say	48	0.256	0.079
Do you get outdoors	47	0.428	0.003
About how often do you get outdoors	42	0.851	0.001
Do you enjoy the organized activities here at the nursing home	45	0.594	0.001
Outside of religious activities, do you have enjoyable things to do during the weekend	44	0.430	0.004
Despite your health condition, do you give help to others	47	0.495	0.001
Do the days here seem too long to you	47	0.569	0.001
Is it easy to make friends at this nursing home	45	0.321	0.032
Do you consider that any other resident here is your close friend	46	0.491	0.001
In the last month, have people who worked here stopped just to have a friendly conversation	46	0.540	0.000
Do you consider any staff member here to be your friend	47	0.480	0.001
Do you think that (name of the facility) tries to make this an easy and pleasant place for families and friends of residents to visit	45	0.641	0.001
Can you go to bed at the time you want	48	0.413	0.004
Can get up in the morning at the time you want	48	0.398	0.005
Can you decide what clothes to wear	47	0.547	0.001
Have you been successful in making changes in things you do not like	37	0.214	0.204
Do you like the food at (name of the facility)	48	0.584	0.001

Table 11.19, continued			
Item	N	Correlation	Sig.
Do you enjoy mealtimes at (name of the facility)	48	0.328	0.023
Can you get your favorite foods at (name of the facility)	41	0.583	0.001
Do you participate in religious activities here	48	0.669	0.001
Do the religious observances here have personal meaning for you	47	0.470	0.001
Do you feel your life as a whole has meaning	45	0.314	0.036
Do you feel at peace	47	-0.012	0.936
Do you feel that your possessions are safe at this nursing home	48	0.285	0.049
Do your clothes get lost or damaged in the laundry	45	0.586	0.001
Do you feel confident that you can get help when you need it?	47	-0.025	0.865
If you do not feel well, can you get a nurse or doctor quickly	45	0.069	0.652
Do you ever feel afraid because of the way you or some other resident is treated	47	0.378	0.009
Taking all staff together, nurses, aides, and others, does the staff know about your interests	44	0.193	0.209
Do staff members know you as a person	45	-0.043	0.781
Are people working here interested in your experiences and the things you have done in your life	42	0.447	0.003
Do staff here take your preferences seriously	44	0.136	0.379
Do residents here know you as a person	39	0.289	0.075
Are your personal wishes and interests respected here	48	-0.040	0.785

*Bold values are statistically significant

The extent of correlations between researchers and surveyors by domain scores is shown in Table 11.20. All the correlations are significant. Correlations for 5 out of 11 domains are above 0.60.

Table 11.20. Correlations between Surveyors and Researchers by Domain Scores

Domain	N	Correlation	Sig.
Comfortably	48	0.717	0.001
Functional Competency	47	0.759	0.001
Privacy	45	0.538	0.001
Dignity	48	0.375	0.009
Meaningful activities	46	0.654	0.001
Relationships	45	0.630	0.001
Autonomy	47	0.418	0.003
Enjoyment	41	0.748	0.001
Spiritual well being	47	0.445	0.002
Security	46	0.456	0.001
Individuality	41	0.431	0.005

Results on Observations: Surveyors

The mean values for the meal observations are shown in Table 11.21. Two of the 16 items (#6 staff impose restriction and #15 noxious noise levels) showed statistically significant difference between research and surveyor observers. In both items, surveyors were more likely to see these behaviors than U of M observers.

Table 11.21. Mean Values of Meal Observations for Surveyors and Researchers

Item	Researchers	Surveyor	t	Sig
M01-Negative resident expression	0.289	0.222	0.903	0.372
M02-Staff move resident's wheelchair without asking or discussing	0.222	0.289	-0.903	0.372
M03-Staff answer questions or fulfill requests	0.911	0.844	0.903	0.372
M04-Staff talk over resident's head(s)	0.222	0.222	0.000	1.000
M05-Staff discuss resident's private business in public	0.068	0.091	-0.443	0.660
M06-Staff impose restriction	0.045	0.205	-2.464	0.018
M07-Staff speak roughly or threatening	0.023	0.000	1.000	0.323
M08-Resident heard laughing	0.727	0.591	1.431	0.160
M09-Resident not talking at meals	0.622	0.511	1.093	0.280
M10-Resident fed messily	0.022	0.000	1.000	0.323
M11-Staff feeding more than one resident at a time	0.182	0.114	1.354	0.183
M12-Tablecloths or placemats	0.578	0.578	#	
M13-Centerpiece on each table	0.511	0.556	-1.431	0.160
M14-Pleasant odors	0.578	0.756	-1.835	0.073
M15-Noxious noise levels	0.111	0.333	-2.664	0.011
M16-Unpleasant odors	0.000	0.022	-1.000	0.323

*Bold values are statistically significant.

Either surveyor or researcher did not observe so Kappa could not be calculated.

The walk-through observation mean values are contrasted in Table 11.22. Only one of the 18 items (#11 residents disengaged at nursing station) showed significant difference between researchers and surveyor observers. In this case, too, surveyors were more likely to see resident disengaged at nursing station.

Table 11.22. Mean Values of Walk-through Observations for Surveyors and Researchers

Item	Researchers	Surveyor	t	Sig
W01-negative resident expression	0.125	0.208	-0.811	0.426
W02-resident in distress	0.292	0.250	0.569	0.575
W03-staff move resident's wheelchair without asking or discussing	0.250	0.167	1.446	0.162
W04-staff answer questions or fulfill requests	0.417	0.333	0.811	0.426
W05-staff talk over resident's head/s	0.083	0.208	-1.366	0.185
W06-resident's body uncovered	0.292	0.333	-0.440	0.664
W07-staff discuss resident's private business in public	0.083	0.083	#	#
W08-staff impose restriction	0.125	0.125	0.000	1.000
W09-staff speak roughly or threatening	0.042	0.042	0.000	1.000
W10-resident heard laughing	0.375	0.417	-0.327	0.747
W11-resident disengaged at nursing station	0.292	0.667	-3.715	0.001
W12-resident is in solo activity	0.875	0.875	0.000	1.000
W13-spontaneous activity	0.417	0.375	0.371	0.714
W14-organized activity	0.375	0.458	-1.000	0.328
W15-disengaged during organized activity	0.167	0.208	-0.569	0.575
W16-noxious noise levels	0.167	0.333	-1.696	0.103
W17-unpleasant odors	0.292	0.500	-1.735	0.096
W18-clutter in hallways	0.625	0.708	-1.446	0.162

Bold values are statistically significant.

Either researcher or surveyor did not observe the item so Kappa could not be computed.

The correlations between surveyors and research staff on the meal observations are shown in Table 11.23. Of the 16 possible kappas calculated, 6 were significant. No kappa could be calculated for item #7 and #16 because the two behaviors (staff speaks roughly or threatening and unpleasant odors) were never observed during meals and walk-through observations by UM and surveyor observers. For the meal observation, 2 of the statistically significant kappas indicate excellent agreement, 2 indicate good agreement, and 2 indicate marginal agreement.

The correlations for the walkthrough observations are shown in Table 11.24; 11 of 18 kappas calculated were significant. If one used the general rule that kappas greater than 0.75 indicate excellent agreement, kappas ranging from 0.4 to 0.75 indicate good agreement, and kappas ranging from 0 to 0.4 indicate marginal agreement (Landis and Koch, 1977), For the walk-through observation, 3 statistically significant kappas showed excellent agreement, 5 showed good agreement and 2 showed marginal agreement.

Table 11.23. Correlations between Researchers and Surveyors on Meal Observations

Items	Kappa
M01-Negative resident expression	0.361*
M02-Staff move resident's wheelchair without asking or discussing	0.361*
M03-Staff answer questions or fulfill requests	-0.128
M04-Staff talk over resident's head/s	0.614***
M05-Staff discuss resident's private business in public	0.225
M06-Staff impose restriction	0.116
M07-Staff speak roughly or threatening	#
M08-Resident heard laughing	0.108
M09-Resident not talking at meals	0.062
M10-Resident fed messily	#
M11-Staff feeding more than one resident at a time	0.553***
M12-Tablecloths or placemats	1***
M13-Centerpiece on each table	0.911***
M14-Pleasant odors	0.034
M15-Noxious noise levels	0.040
M16-Unpleasant odors	#

Bold values are statistically significant. * means $p < .5$; ** means $p < .01$; *** means $p < .001$.

Either researcher or surveyor did not observe the item so Kappa could not be computed.

Table 24. Correlations between Researchers and Surveyors on Walkthrough Observations

Item	Kappa
w01-negative resident expression	0.111
w02-resident in distress	0.684***
w03-staff move resident's wheelchair without asking or discussing	0.75***
w04-staff answer questions or fulfill requests	0.471*
w05-staff talk over resident's head/s	0.189
w06-resident's body uncovered	0.516*
w07-staff discuss resident's private business in public	1.000***
w08-staff impose restriction	0.238
w09-staff speak roughly or threatening	-0.043
w10-resident heard laughing	0.217**
w11-resident disengaged at nursing station	0.341*
w12-resident is in solo activity	0.619**
w13-spontaneous activity	0.391
w14-organized activity	0.660**
w15-disengaged during organized activity	0.591**
w16-noxious noise levels	0.357
w17-unpleasant odors	0.250
w18-clutter in hallways	0.814***

Bold values are statistically significant. * means $p < .5$; ** means $p < .01$; *** means $p < .001$.

Qualitative Results

We sought feedback from staff that participated in the transferability study. The principal investigator and one other researcher (for note taking) went to each of the 8 participating facilities to meet with the four participants as a group. The attendance ranged from the full 4 people to 2 people: sometimes, but not always the non-attendance was attributed to an emergency. When possible, we telephoned those who did not participate in the feedback sessions. Of a possible 32 research participants, 24 took part in the formal feedback meetings. Non-attendance was evenly divided between nurses and psychosocial personnel. During those meetings, we made an effort to create a permissive climate where participants felt free to criticize the process. (See Volume 2, Appendix W for the focus group guide.)

The feedback was decidedly mixed on every parameter.

Training. Some respondents found the training interesting and helpful, but many found it boring and unnecessary. Some found the manual interesting, but half the respondents acknowledged they “skimmed it” rather than reading it carefully. Some found the audio taped interview helpful, but again many did not listen to it. Some had no tape deck in their cars or homes. Some found they had no time, or assumed it would not be necessary. As we indicated earlier in the chapter, attendance at the in-person training was poor, and many arrived without any understanding of what they had supposedly agreed to do after the training. Some thought they were simply having an in-service on interviewing.

Reactions to doing interview. Some participants found the process interesting and illuminating. These were individuals who tended to say they had learned something new from speaking to one or more of the residents assigned to them. Several respondents volunteered that they found it poignant that “even though we try so hard,” people still respond “rarely” to a

question about the staff having a friendly conversation. They thought it was useful to hear such feedback because it stimulated trying harder. Some wanted to use the interview tools for training or for their own QI activities.

In contrast, there were others who were extremely negative about the interviews. At one facility several professed that the information was inaccurate. When asked for an example, the respondent said that the resident had said she did not find religious observances meaningful; the staff member said that this resident was a Christian in a Jewish facility, but the answer was not “true” because the facility makes religious experiences available in all denominations. The four participants from a facility tended to argue among themselves; at this point one of the other more positive individuals said, “But maybe it was not meaningful.” One respondent illustrated by describing an interview with a “joker” who likes to complain, but “we know he is just lying.”

We saw no relationship between profession and reaction to the interview. We got positive and negative comments from both nurses and psychosocial personnel. Even among those who enjoyed the process, many were concerned about CMS mandating these procedures and expressed concern the results would be used against them. None of the respondents felt it made a difference in the quality of the interview if they knew the resident quite well.

Reaction to Observations. Again we got mixed reactions. Though many found it interesting to walk through or observe their own facility, some were shocked at what they saw and felt they needed to intervene immediately rather than continue a structured observation. For example, they sometimes instructed a staff member to help a particular resident observed to be in distress, or intervene to change the way residents were being fed. Several commented that they noticed other things beside what they were supposed to be watching for; an example was a dropped piece

of paper or a bookshelf with messy volumes. Some of the participants had roles such as MDS coordinator and were alert to things they thought would negatively reflect an inspection survey.

Logistics. The participants had widely varying duties in the nursing home. Charge nurses seldom felt they had enough time for the process, and the several MDS coordinators who participated tended to be less enthusiastic. The most enthusiastic nurses were staff developers or part-time nurses; one of the former was very excited about the protocols. Some social work directors and activities personnel were enthusiastic, and others felt they did not have time and that fitting in their 6 interviews was burdensome.

Conclusions

In general, the transferability studies suggest that the techniques involved in interviewing residents and making general observations can be taught to both nursing home staff and surveyors. The generally high levels of agreement on the interviews reflect both inter-rater and test/retest reliability.

It is somewhat surprising that the extent of training for the nursing home staff did not produce a greater effect on their performance. Part of this failure can be explained by the number of nursing home staff who were assigned to the active training group but missed large portions of the training because of other demands on their time. Another explanation may be that staff members were not motivated to take the training seriously for what was viewed as simply a test. If collecting this information became part of their regular duties, they may be motivated to take greater advantage of the training.

Limitations on the study include the relatively small sample, and the fact that it was a test situation. We cannot be sure that interviewers would be as accurate in a situation where the data were being used for a specific purpose such as regulatory or training purposes.