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The Effect of Symptom Visibility on Informant Reporting

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Abstract

Informant reporting is important in the assessment of depression and anxiety among individuals with cognitive impairment. We examined the influence of the visibility effect on the ease of rating depression and anxiety symptoms. 53 family members of dementia patients and 65 staff members working with cognitively impaired adults judged the ratability of the Inventory of Depression and Anxiety Symptoms item pool. Results indicated that Appetite Loss, Lassitude and Insomnia scales were easiest to rate; Suicidality and Traumatic Intrusions were most difficult to rate. Findings support the visibility effect and emphasize the importance of selecting easy to rate items for informants.

Keywords

informant reporting; dementia; depression; anxiety; visibility effect

The Effect of Symptom Visibility on Informant Reporting

Depression and anxiety can have a significant impact on adults with dementia and other cognitive disorders, such as increased disability (Espiritu et al., 2001) and earlier institutionalization (Dorenlot, Harboun, Bige, Henrard, & Ankri, 2005), but they can be difficult to measure in these patients due to the nature of their impairments. Several instruments have been developed that specifically utilize informant reporting for the cognitively impaired. Commonly used measures, such as the Cornell Scale for Depression in Dementia (Alexopoulos, 1988), the Revised Memory and Behavior Problems Checklist (Teri et al., 1992), and a collateral version of the Geriatric Depression Rating Scale (Nitcher, Burke, Roccaforte, & Wengel, 1993), have demonstrated good convergent and discriminant validity.

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Informants may be particularly important sources of information for patients with Alzheimer's disease (AD). Gilley et al. (1995) compared agreement between informants and patients with AD, Parkinson's disease and normal elderly adults. The authors found poorer concordance between informants and the AD patients than in the other groups and interpret this to suggest that AD patients may underreport symptoms. These findings reiterate the importance of informant reporting among cognitively impaired adults and suggest that informant ratings may be more valid than AD patient self-ratings when compared with other patients and elderly.

Informant reports may be useful more broadly among the elderly. For example, McAvay, Bruce, Raue and Brown (2004) found that elderly who were reported as depressed by informants only (i.e., not through self-report) were similar in risk factor profiles to those for whom both informant and patient agreed on the presence of depression. In other words, although patients did not report being depressed, they may in fact have been depressed as identified by informants.

Thus, informant reporting has proven to be an important means of assessing depression and anxiety among adults with cognitive impairment. However, it remains important to establish the validity of informant reporting, particularly for cognitively impaired adults, through research that specifically addresses the factors that may affect informant reporting.

The Impact of Symptom Visibility on Informant Ratings

The ability of informants to report on behalf of patients/family members (which we will refer to as *ratability*) is likely influenced by several variables including patient, informant, instrument, and symptom characteristics. In order to more fully understand the reliability and validity of informant ratings, it is important to examine how these variables influence ratability; for the purposes of this study, we focus our review on the influence of symptom characteristics. The effect of the type of variable being rated (e.g., mood, personality or cognitive functioning) on informant – patient agreement has yielded consistent results, providing evidence of a *visibility effect*: more easily observed characteristics generally evidence greater agreement between raters. This effect repeatedly has been demonstrated in the personality literature (e.g., Funder & Colvin, 1988; Watson, Hubbard & Wiese, 2000). As described by Funder (1995), a visible variable is one that is available to and observable by the informant.

The visibility effect has clear implications within clinical research as well, in that significant variability may exist in the visibility of different symptoms; to date, however, there has been little empirical work in this area. Research findings thus suggest that one possible influence on the validity of informant ratings may be symptom visibility.

Overview of Current Research

The basic goal of the current research was to investigate variables affecting accuracy of informant reporting. This study was conducted as part of the development of a new self-report instrument, the Inventory of Depression and Anxiety Symptoms (IDAS), which assesses specific symptoms of depression and anxiety disorders (e.g., Suicidality, Insomnia, and Panic); the IDAS also contains a broader scale assessing Dysphoria (see Watson et al., 2007, for more details).

The current study had two specific goals. The first objective was to determine if the ratability of specific depression and anxiety symptoms varies among informants of adults with cognitive impairment and, if so, if this variability is consistent with a visibility effect. The second, related objective was to examine variation in item ratability within each scale.

These two goals are of theoretical interest (i.e., does the visibility effect hold within these types of symptoms?) and practical significance. More specifically, testing the visibility effect may suggest ways to improve informant ratings by identifying easily rated symptoms and incorporating this knowledge into informant measures. We selected ratability analyses given their strong correlation with self-other agreement (Ready, Clark, Watson & Westerhouse, 2000). Specifically, Ready et al. (2000) found a .58 correlation between ratability ratings of personality traits in one sample and self-other agreement on these same traits in another sample.

Consistent with the visibility effect, we predicted that those symptoms that are more easily observable and have clear behavioral manifestations (e.g., Appetite Loss, Appetite Gain, Lassitude, Insomnia and Ill Temper) would be easier to rate than symptoms that essentially are cognitive or affective in nature (e.g., Dysphoria, Suicidality, Panic, Social Anxiety, Well-Being and Traumatic Intrusions). In addition, we expected that there would be variation in the ratability of specific items: behaviorally-oriented symptoms (e.g., slept more than usual) should be more easily ratable than cognitive- or affective-oriented items (e.g., felt drowsy, sleepy).

Methods

Participants & Procedure

Family Member Group—Family members of adults with memory loss or other cognitive impairments (e.g., dementia) were recruited from the University of Iowa Hospitals and Clinics (UIHC) Departments of Neurology and Psychiatry, as well as from local agencies providing services for elder adults and their caregivers. Patients recently seen for memory loss or other cognitive problems at the UIHC were invited to be part of a research registry and all research registry patients (N=121) were mailed a letter describing the study and inviting them to identify a suitable family member to serve as an informant. These informants were then mailed a letter inviting them to participate by completing a questionnaire at home and returning it by mail. Of the registry patients, 41 had family members who agreed to participate (2 patients each had 2 separate informants enroll in the study).¹ Family members recruited from local agencies were identified through their participation in caregiver support groups. Those family members interested in participating received a questionnaire packet from support group leaders, completed the packet at home and returned it by mail. Overall, 14 family members were recruited from local agency support groups and 43 from the UIHC. Due to incomplete data, responses from four participants were eliminated from analyses, yielding a final group of 53 informants.

The final group consisted of 15 men and 38 women, with an average age of 64 years. Most participants were married (75.5%) and currently not employed (60.4%). Most family members were spouses of patients (62.3%), followed by children of patients (24.5%), other (e.g., daughter-in-law, son-in-law, grandchild; 7.6%), sibling (3.8%), and parent (1.9%). Over half of family members spent every day with the patient (54.7%); six participants (11.3%) spent nearly everyday with the patient, and equal numbers (13.2% each) spent several times a week or several times a month with the patient. One participant spent several times a year with the patient and one participant spent less than several times a year with the patient.

¹Participating and non-participating patients were comparable in diagnosis: among patients with available diagnoses, 77% of participating patients and 78% of non-participating patients were diagnosed with AD.

Staff Member Group—Participants were 66 staff members of a local agency providing residential, respite and supported community living services to adults with developmental disabilities (e.g., mental retardation, brain injuries, cerebral palsy). Participants provided various direct care services to clients in supported community living situations, such as assistance in self-care, daily living and community engagement. Questionnaires were distributed to staff members at their job site and they were invited to participate by completing the survey individually and returning it to the agency office. The group consisted of 15 men and 51 women, with an average age of 32.4 years. They had worked at the agency for an average of 5.7 years. Due to incomplete data, responses from one participant were eliminated, yielding a final sample of 65.

Measures

IDAS Ratability Version—Participants completed a ratability version of the IDAS. The IDAS contains 11 standard symptom scales (see Table 2 for item content of most scales): a 10-item Dysphoria scale; 8-item measures of Well-Being and Panic; 6-item measures of Suicidality, Insomnia, and Lassitude; 5-item measures of Social Anxiety and Ill-Temper; a 4-item measure of Traumatic Memories; and 3-item measures of Appetite Loss (e.g., did not have much of an appetite) and Appetite Gain (e.g., thought a lot about food).

In addition to the standard 64 items, participants were asked to rate items reflecting each of the nine DSM-IV (American Psychiatric Association, 1994) symptom criteria for Major Depression, as well as other symptoms not included in the final IDAS, for a total pool of 174 items. This 174-item version included 105 items that were part of the initial IDAS development pool (see Watson et al., 2007, Appendix B), plus 5 items specifically added for this study.

The IDAS scales have been shown to have excellent internal consistency across college student, psychiatric patient, postpartum, young adult, community adult and high school student samples (Watson et al., 2007). In addition, the scales demonstrate good convergent validity with other self-report inventories such as the Beck Depression Inventory Second Edition (BDI-II; Beck, Steer, and Brown, 1996) and Beck Anxiety Inventory (BAI; Beck & Steer, 1990), as well as with interview measures of depression and anxiety (see Watson et al., 2007). The IDAS also was administered to a sample of 213 elderly adults ($M = 74$ years, range = 57–92) and showed similar psychometric properties in these participants (Koffel & Watson, 2007).²

Modified IDAS instructions for family members stated: “Imagine your family member with memory or cognitive problems. Your family member may or may not be experiencing some of these symptoms. However, please read each item and indicate whether or not you are able to see these different feelings and thoughts in your family member.... We want to know which items below are easy for you to SEE or TELL when your family member experiences or doesn’t experience them.” Family members responded on a 4-point scale, where 1 = very difficult to rate and 4 = very easy to rate. For staff members, instructions stated: “Imagine an individual you serve through your agency. Read each item and indicate on the four-point scale how difficult/easy it would be to rate this individual (e.g., his/her feelings, perceptions, problems) on the item.” Staff members also responded using the same 4-point scale.

²All of the IDAS scales examined in Koffel and Watson (2008) had coefficient alphas of .75 or higher.

Results

Reliability of Ratings

Split-half analyses—We began by examining interrater agreement through split-half reliability at the item level to determine whether we had adequate numbers of raters. Split-half reliability was computed by randomly dividing each group in two and then examining the item-level intraclass correlations (ICCs) for both the overall pool of 174 items and the 64 standard IDAS items (therefore, $N = 174$ and $N = 64$, respectively, for these analyses). This examination of ICCs allowed us to test for consistency in both rank order and mean level of the ratings. Analyses yielded ICCs of .83 (174 items) and .87 (64 items) for the randomly split family members and .90 (174 items) and .87 (64 items) for randomly split staff members. Thus, the ICCs indicated a strong level of consistency and reliability within each sample and demonstrated that group sizes were sufficient to yield excellent reliability in the ratings.

Cross-group analyses—Next, we correlated the mean ratable scores of the 174 items and the 64 standard IDAS items across the two informant groups. The Pearson correlations between the two groups were .66 (174 items) and .70 (64 items). This high level of agreement regarding which symptoms are more and less difficult to rate provides initial support for a visibility effect that is consistent across different types of informants.

Visibility Effect³

Cross-group analyses—The next set of analyses examined the ratable of specific symptoms of depression and anxiety and tested our hypotheses regarding visibility effects separately in each informant group. Table 1 shows the average ratable of the items in each IDAS scale for the family member and staff groups, as well as the effect sizes for mean differences between groups. The IDAS scales ranged in average ratable from as high as 3.14 for Appetite Loss within family members to as low as 1.89 for Traumatic Intrusions within staff members. The scales with the highest means in both groups included Appetite Loss, Lassitude and Insomnia; the scales with the lowest means in both groups included Traumatic Intrusions and Suicidality. One large effect size was found: The mean ratable of the Dysphoria items was almost one full standard deviation higher for family members than for staff members ($d = .90$). In addition, one medium effect size was found: The mean ratable of the Traumatic Intrusions items was roughly one half of a standard deviation higher ($d = .54$) among family members.

Within-group analyses—Next, we computed effect sizes for IDAS scale mean differences within each group of raters. These analyses indicated that 20 of the 55 effect size differences comparing each scale with every other scale within the family member group were medium or large in magnitude. The mean ratings for Appetite Loss, Lassitude and Dysphoria demonstrated large or medium effect sizes when compared with nearly every scale, including Ill Temper, Social Anxiety, Well-Being, Panic, Traumatic Intrusions and Suicidality. In addition, the mean rating for Insomnia showed medium effect sizes when compared with Traumatic Intrusions and Suicidality. Finally, the means for Appetite Gain, Ill Temper and Social Anxiety all had medium effect sizes when compared with Suicidality.

Within the staff member group, 34 of the 55 effect sizes were medium or large in magnitude. The mean ratings for Appetite Loss, Lassitude and Ill Temper showed medium

³We examined correlations between various informant characteristics (i.e., demographic and relationship variables) and the overall ratable of the symptoms of depression and anxiety. No significant correlations were found; these variables were therefore not included as covariates in subsequent analyses.

and large effect sizes when compared with Dysphoria, Appetite Gain, Social Anxiety, Well-Being, Panic, Traumatic Intrusions and Suicidality. The mean rating for Appetite Loss also demonstrated a medium effect size when compared with Insomnia. Finally, the mean ratings for Dysphoria, Insomnia, Appetite Gain, Social Anxiety, Well-Being and Panic had medium and large effect sizes when compared with Traumatic Intrusions and Suicidality.

Within-scale analyses—We next examined the visibility effect at the item level by dividing each scale in half based on item ratability for the overall combined group of family members and agency staff members. The easier-to-rate half of the scale, or those items with higher mean scores (based on a median split), were grouped together as the “easiest” to rate subscale, whereas the items with lower mean scores were grouped together as the “hardest” to rate subscale. For example, within the family member group, the five Dysphoria items with the highest ratability means formed the easiest-to-rate Dysphoria subscale with a mean of 3.05. In contrast, the five Dysphoria items with the lowest ratability means formed the hardest-to-rate subscale with a mean of 2.64. This process of splitting items into easy- vs. hard-to-rate subscales was conducted within each group for each IDAS scale (Appetite Gain and Appetite Loss—which have only three items apiece—were excluded from these analyses). Effect sizes were then computed comparing the mean differences between the easiest- and hardest-to-rate subscales.

Analyses among family members (see Table 2) revealed medium effect sizes for three sets of items: Dysphoria, Ill Temper and Lassitude. In addition, effect sizes for Suicidality and Well-Being were nearly medium in magnitude. Among staff members, six large effect sizes were found: Dysphoria, Ill Temper, Panic, Social Anxiety, Suicidality and Well-Being.

Overall, those items having more of a behavioral or interpersonal element were generally easier to rate than those with more of a cognitive or emotional component. For example, within the Dysphoria scale, “had little interest in usual hobbies/activities” was easier to rate than “felt inadequate.” Similarly, the Suicidality item “cut or burned him/herself on purpose” was easier to rate than was “thought about hurting him/herself.”

Discussion

Our analyses indicated that considerable differences exist in the ratability of symptom dimensions, consistent with a visibility effect. More specifically, those symptoms of depression and anxiety that have more obvious external manifestations were easier for family and staff members to rate, including Appetite Loss, Lassitude, Insomnia and Ill Temper. In addition, the more cognitive or emotional symptoms, such as Traumatic Intrusions and Suicidality, were the most difficult for both family and staff members to rate. Appetite Gain, Social Anxiety, Well-Being and Panic were intermediate in their ratability for both groups.

Two scales did not behave as expected, namely, Appetite Gain and Dysphoria. Appetite Gain was expected to be one of the easiest-to-rate scales given the behavioral nature of its items; however, this scale had medium effect sizes only when compared with the most difficult-to-rate scales of Suicidality and Traumatic Intrusions. This is particularly surprising given the high ratability of the Appetite Loss scale: one would expect that informants who can easily rate Appetite Loss also can easily rate Appetite Gain. Conversely, Dysphoria, a more affective symptom, was among the easiest-to-rate scales for family members. One possible explanation for this finding is the diverse content of this scale, which includes items reflecting psychomotor problems and concentration difficulties. Family members may have been particularly attentive to concentration problems given their relative’s cognitive impairments.

Considerable item-level differences were found within each scale as well, and several medium to large effect sizes emerged when comparing easy versus difficult to rate items within the same scale. This indicates that even within a particular domain, steps can be taken to maximize the ratability of the items, and, subsequently, increase agreement between informants.

One striking aspect of our study was the strong correlations ($r = .66$ and $.70$ in the 174 item and 64 item analyses, respectively) we obtained between the mean item ratability scores in our two groups. Thus, despite substantial differences in the type of relationship (i.e., personal vs. professional) and the context of the ratings, family members and staff members showed a strong level of agreement regarding which items were easier versus harder to rate; this reinforces the argument that certain types of items/symptoms consistently are easier to rate than others.

Nevertheless, the family members judged the Dysphoria (large effect size) and Traumatic Intrusions (medium effect size) items to be much easier to rate than did the staff members. Thus, although most of the affective/cognitive symptoms were judged to be more difficult to rate by both groups, this was not the case for Dysphoria. These mean level differences across groups suggest informant characteristics potentially are important and merit further investigation.

This study contributes to a growing body of research that emphasizes the importance of visibility in informant ratings; it makes an interesting contribution by confirming the existence of this effect within the domain of depression and anxiety symptoms. Although the visibility effect has been repeatedly reported in studies of personality traits, results of this study suggest that it is relevant well beyond this domain. Moreover, our results also indicate that the visibility effect may be present at the item level as well as at the broader symptom/trait level.

Our results also have potential implications for clinical work. Specifically, clinicians may use these findings to encourage informants to focus on visible symptoms when screening for mood and anxiety disorders. In addition, these results suggest that, in developing new informant measures, it may be best to include more behaviorally-oriented items during the initial stages of scale construction. Our results suggest that agreement between informants may be improved by developing and selecting behavioral items for the construct of interest, and that it is entirely possible to create informant scales measuring the same symptom dimensions (e.g., insomnia) that differ markedly in the ease with which informants can complete them.

Perhaps of greatest clinical significance is the consistent difficulty our informants had in rating Suicidality. Identifying older adults, such as the cognitively impaired, with suicidal ideation is a critically important public health objective given the disproportionate number of suicides among older adults (Pearson & Conwell, 1995). Unfortunately, the results of our study and others suggest that it is very difficult for both family and staff members to identify such thoughts and feelings. McAvay, Raue, Brown, and Bruce (2005), for example, found that medically-ill elderly are more likely to report suicidal symptoms than their informants, suggesting that patients are reluctant to disclose such thoughts to family or friends. These studies highlight the need to improve our ability to identify those with suicidal thoughts.

Limitations included the fact that our participant groups may or may not be representative of other informant samples. Moreover, given the different instructions provided to family and staff members, it is difficult to know if both groups were responding to items similarly, or if staff members perhaps were recalling experiences with more than one client. Finally, our study is limited by the absence of both (a) actual informant ratings and (b) parallel self-

reports from the targets of these ratings. Including such data would allow for an examination of (a) actual interrater reliability and (b) self-informant agreement across different types of symptoms.

The results of this study extend the visibility effect to the domain of depression and anxiety symptoms and reveal that more observable symptoms are easier for informants to rate. Our findings also suggest that the visibility effect is relevant even at the item-level; that is, within a single symptom domain (e.g., ill temper), we observe variability in the ratability of individual items. Our data suggest there is much to be gained by surveying individuals about ratability and then selecting those items that may be more reliably and validly rated.

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Table 1

Average Ratability of Items Included in Each IDAS Scale

Scale	# of Items	Family Members		Staff Members		Cohen's d
		Mean	SD	Mean	SD	
Appetite Loss	3	3.14	.78	3.01	.67	.18
Lassitude	6	3.00	.66	2.83	.55	.28
Dysphoria	10	2.88	.59	2.31	.55	.90
Insomnia	6	2.84	.94	2.61	.87	.25
Appetite Gain	3	2.79	1.04	2.47	.78	.35
Ill Temper	5	2.73	.84	2.93	.73	-.25
Social Anxiety	5	2.63	.73	2.48	.63	.22
Well-Being	8	2.49	.76	2.30	.37	.27
Panic	8	2.47	.95	2.42	.61	.07
Traumatic Intrusions	4	2.35	.94	1.89	.72	.54
Suicidality	6	2.21	.88	1.93	.63	.37

Note. $N = 53$ family members, $N = 65$ staff members. IDAS scales in descending order of ratability, based on family member group. Cohen's d based on differences between family and staff members in ratability (family member mean minus staff member mean divided by the pooled standard deviation). Large and medium effect sizes in bold.

Table 2

Average Ratability of the Standard Paraphrased IDAS Items

Scale/Item	Family Members				Staff Members			
	Mean	SD	Cohen's <i>d</i>		Mean	SD	Cohen's <i>d</i>	
<i>Dysphoria</i>								
Easiest items	3.05	0.70	0.57		2.77	0.53	1.45	
Had little interest in hobbies, activities	3.34	0.93			3.11	0.83		
Felt fidgety, restless	3.13	1.04			2.95	0.89		
Had trouble making up mind	3.23	0.93			2.77	0.91		
Talked more slowly than usual	2.81	1.16			2.72	0.98		
Had trouble concentrating	3.15	0.89			2.28	0.91		
Hardest items	2.64	0.76			1.86	0.71		
Felt depressed	2.77	1.01			1.97	0.97		
Found self worrying all the time	2.55	1.08			2.08	1.05		
Felt discouraged about things	2.74	0.92			1.88	0.91		
Blamed self for things	2.55	1.14			1.88	0.94		
Felt inadequate	2.58	1.06			1.51	0.72		
<i>Well Being</i>								
Easiest items	2.69	0.78	0.48		2.61	0.72	0.86	
Looked forward to things with enjoyment	2.66	1.06			2.88	0.94		
Was proud of self	2.77	1.05			2.66	1.03		
Felt like had a lot of energy	2.49	1.15			2.65	0.87		
Felt optimistic	2.83	1.14			2.22	0.98		
Hardest items	2.30	0.83			1.99	0.73		
Felt had accomplished a lot	2.36	1.16			2.27	1.02		
Felt like had interesting things to do	2.23	0.99			2.09	0.80		
Felt hopeful about the future	2.45	0.99			1.82	0.86		
Felt had a lot to look forward to	2.17	1.01			1.85	0.89		
<i>Panic</i>								
Easiest items	2.64	1.00	0.34		2.75	0.66	1.01	
Was trembling or shaking	3.01	1.22			3.40	0.77		

Scale/Item	Family Members			Staff Members		
	Mean	SD	Cohen's <i>d</i>	Mean	SD	Cohen's <i>d</i>
Was short of breath	2.57	1.28		2.78	0.99	
Felt like he/she was choking	2.26	1.26		2.51	1.09	
Felt dizzy or lightheaded	2.51	1.20		2.25	0.85	
Hardest items	2.31	0.98		2.08	0.67	
Had a very dry mouth	2.46	1.21		2.28	0.94	
Felt pain in chest	2.32	1.16		2.32	0.99	
Felt faint	2.47	1.25		2.09	0.90	
Heart was racing or pounding	2.19	1.19		1.72	0.86	
<i>Lassitude</i>						
Easiest Items	3.30	0.68	0.76	2.95	0.61	0.40
Slept more than usual	3.34	0.88		2.91	0.98	
Took a lot of effort to get going	3.23	0.91		3.00	0.71	
Felt exhausted	3.32	0.87		2.88	0.82	
Hardest Items	2.71	0.70		2.77	0.53	
Felt drowsy, sleepy	3.21	0.88		2.95	0.80	
Had trouble waking in morning	2.70	1.08		2.83	1.01	
Felt worse in morning than later in day	2.23	1.23		2.42	0.93	
<i>Traumatic Intrusions</i>						
Easiest items	2.50	1.05	0.27	1.95	0.83	0.13
Got upset thinking about bad thing	2.62	1.21		2.02	0.96	
Had disturbing thoughts about bad thing	2.36	1.15		1.86	0.88	
Hardest items	2.21	1.07		1.82	0.76	
Had nightmares of bad thing	2.32	1.22		1.82	0.90	
Had memories of scary thing	2.11	1.10		1.88	0.94	
<i>Insomnia</i>						
Easiest Items	3.00	0.97	0.33	2.70	0.89	0.20
Slept less than usual	3.09	1.06		2.86	1.01	
Had trouble falling asleep	3.08	1.19		2.57	1.07	
Woke up earlier than usual	2.77	1.22		2.65	1.22	
Hardest Items	2.67	1.01		2.52	0.93	

Scale/Item	Family Members			Staff Members		
	Mean	SD	Cohen's <i>d</i>	Mean	SD	Cohen's <i>d</i>
Woke up early and couldn't sleep	2.74	1.26		2.58	1.00	
Slept very poorly	2.83	1.19		2.49	1.00	
Woke up frequently during the night	2.51	1.07		2.49	1.09	
<i>Ill Temper</i>						
Easiest items	2.97	0.94	0.65	3.19	0.72	0.80
Lost temper and yelled at people	2.98	1.23		3.32	0.97	
Was furious	2.94	1.15		3.28	0.89	
Little things made him/her mad	3.00	1.09		2.98	0.84	
Hardest items	2.36	0.95		2.52	0.95	
Felt enraged	2.72	1.13		2.65	1.07	
Felt like breaking things	2.00	1.18		2.40	1.10	
<i>Social Anxiety</i>						
Easiest items	2.76	0.80	0.36	2.88	0.70	1.34
Became anxious in crowded settings	2.79	0.97		3.06	0.90	
Found it difficult to talk with people	2.92	1.07		2.66	0.94	
Found it difficult to make eye contact	2.56	1.15		2.92	0.94	
Hardest items	2.44	0.95		1.88	0.79	
Felt self-conscious with others watching	2.36	1.11		2.03	0.97	
Worried about embarrassing self socially	2.53	1.08		1.74	0.87	
<i>Suicidality</i>						
Easiest items	2.45	1.04	0.49	2.31	0.75	1.07
Cut or burned self on purpose	2.40	1.36		2.85	1.09	
Hurt self purposely	2.47	1.37		2.48	1.09	
Thought the world better without him/her	2.47	1.19		1.43	0.71	
Hardest items	1.97	0.89		1.54	0.69	
Had thoughts of suicide	2.08	1.21		1.62	0.80	
Thought about own death	2.00	1.06		1.56	0.91	
Thought about hurting self	1.84	1.08		1.62	0.76	

Note. Easiest and Hardest items ranked based on item mean for combined sample. Items rated on a 4-pt scale where 1 = very difficult to rate and 4 = very easy to rate. *N* = 53 family members, *N* = 65 staff members. Cohen's *d* = Easiest items mean minus hardest items mean for each scale divided by the pooled standard deviation.