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Author Profile

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## Author Profile

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Factors Associated with Self-Reported Elder Mistreatment in Iowa's Frailest Elders

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## ABSTRACT

**OBJECTIVE:** To determine associations between characteristics of community-dwelling older persons, their access to care and social provisions, and self-reported elder abuse.

**DESIGN:** Cross sectional survey.

**SETTING:** Community homes.

**PARTICIPANTS:** 498 individuals in the Iowa Medicaid Waiver Program.

**MEASUREMENTS:** A 78-item survey measuring cognitive function, functional ability, need for and barriers to accessing healthcare, mood, personal comfort and safety, and social provisions was mailed to 1,017 elders. The association between abuse and the predictor variables was analyzed using the chi-square statistic. Differences in mean levels of abuse by variable group were analyzed by Mann-Whitney and t-tests. Logistic regression models were created to determine which predictor variables were independent predictors of abuse.

**RESULTS:** The response rate was 49%. The overall prevalence of abuse was 20.9%. The prevalence of financial exploitation was 17.5%, neglect, 6.8%, physical abuse 2.0%, and psychological abuse 1.0%, with some respondents indicating more than one abuse type. The majority of respondents (57%) had help completing the survey. Abuse was associated with low social provision subscales, more emergency room visits, being alone a lot, and not having enough money. Characteristics varied between the individuals who had help filling out the survey (Had Help group) and those who completed it independently (No Help group).

**CONCLUSION:** Among frail elders, prevalence of abuse was higher than that found in general population studies. Assistance completing the survey affected which characteristics were significantly associated with elder abuse. Future studies using self-report of abuse should differentiate responders who are assisted from those who are not.

**KEY WORDS:** Elder Abuse, Medicaid Waiver Program, Depression, Clock Drawing

## INTRODUCTION

Elder abuse is often hidden, with numerous barriers to its detection. Difficulties in obtaining prevalence figures are well documented.<sup>1-3</sup> Challenges include the paucity of validated research tools for detecting elder abuse; the lack of a gold standard for determining actual abuse, complicating the measurement of the sensitivity and specificity, and shifting definitions of elder abuse. Among the definitional ambiguities are whether abuse includes passive neglect as well as intentional neglect, whether self-neglect is considered as a form of elder abuse, whether financial exploitation is included and evaluated, and whether sexual abuse is treated as a subset of physical abuse, or as a separate category of abuse.<sup>4-6</sup>

Elders eligible for institutional placement, yet able to stay at home by receiving services of a waiver program, are a distinct vulnerable group.<sup>7</sup> They have functional and/or mental impairments that lead to dependency. Dependency can lead to depression, social isolation, further mental and functional decline, and elder mistreatment.<sup>8</sup>

This study examines responses to a self-report survey that establishes the characteristics of frail elders on Iowa's Medicaid Waiver Program. Possible victims of abuse are identified based on responses to a short Elder Abuse Screen (EAS), administered as part of the self-report survey. The purposes of this study are 1) to determine the association between characteristics of community-dwelling older persons, their access to care and social provisions, and self-reported elder abuse, and 2) to assess how having help in completing the survey affected these associations.

## **METHODS**

### **Survey Development**

The survey used in the study, the “1999 Survey of the Health of Iowa Seniors” was developed by a research team from the Center on Aging, Public Policy Center, and Department of Family Medicine at the University of Iowa. The survey was revised following pilot testing with ten frail elders living at home and receiving in-home support services for health care. The survey included 78 questions in six sections: 1) need for and barriers to health care and treatment, 2) Instrumental Activities of Daily Living (IADLs), 3) Geriatric Depression Screen (GDS), 4) modified Social Provisions Scale (SPS), 5) Personal Comfort and Safety, 6) Cognitive Abilities. Age and sex were obtained from the State of Iowa’s Medicaid Codebook.

The first section of the survey consisted of 26 questions modified from the Consumer Assessment of Health Plans Study survey instrument<sup>9</sup>. The second section described the individual’s abilities in 11 Instrumental Activities of Daily Living (IADLs) on a three-point scale from 1 = don’t need help to 3 = can’t do it at all. The third section was the Geriatric Depression Scale (GDS) short form, consisting of 15 questions.<sup>10, 11</sup>

The fourth section was a modified Social Provisions Scale (SPS). Social provisions that may be obtained from relationships with others are attachment (emotional closeness from which one derives a sense of security), guidance (advice or information), nurturance (the sense that others rely upon one for their well-being), reassurance of worth (recognition of one’s competence, skills, and value by others), reliable alliance (the assurance the other can be counted upon for tangible assistance), and social integration (a sense of belonging to a group that shares similar interests, concerns, and recreational activities).<sup>12</sup> Two questions from each of the six concepts were used.

The fifth section included seven questions about one's personal comfort and safety. These questions were directed toward domestic elder abuse concerns. The concepts of financial exploitation, neglect, and physical and sexual abuse were explored.<sup>13, 14</sup>

The final section had seven questions exploring cognitive abilities. Respondents were asked the date the survey was completed, the month, the year, the current President's name, if someone helped complete the survey, and how that person helped. Respondents were provided a circle (2 3/4 inch diameter) on the survey and instructed to "please draw the face of a clock with numbers and hands to signify the time at which you finished this questionnaire."<sup>15</sup>

### **Sample Selection**

The Iowa Medicaid Waiver Program is targeted to elders who meet eligibility for institutional level of care but are able to remain at home if provided additional services. It "assists persons aged 65 and older whose income does not exceed 300% of the maximum monthly payment for one person under SSI and who are resource-eligible"(p. E-1).<sup>16</sup> In 1999, 2,868 elderly Iowans were enrolled in the waiver program. All 292 Polk County elderly in the waiver program were included in the sample to provide subjects for long-term follow-up. Twenty five percent of the sample was randomly selected from the remaining counties in number proportional to population, for a total sample of 1017.

### **Outcome Measure**

The outcome measure, elder abuse, was a combined score using five of the seven questions about personal comfort and safety. This subscale was termed the Elder Abuse Screen (EAS). Abuse scores indicate a respondent was abused, or that the potential exists for actual abuse. If a respondent answered positively to either one of two exploitation questions about "having had things taken" or "having signed documents without understanding," this indicated

possible financial exploitation. Positive responses to three questions; “being afraid of someone at home,” “having someone fail to help provide care,” and “being physically hurt or uncomfortably touched” were each indicators of possible psychological abuse, neglect, and physical abuse, respectively. A respondent scored positive for abuse if one of the three questions on psychological abuse, neglect, or physical abuse was answered positively, or if one financial abuse question was answered positively. Where a respondent did not answer all five questions, but answered one or more questions as abused, the participant was scored as abused. Where a respondent did not answer all five questions, but all given answers were non-abuse direction, the respondent was considered non-abused.

Thus, four types of abuse (financial exploitation, psychological abuse, neglect, and physical abuse) were equally weighted in the composite score. The composite score was considered a dichotomous variable: “yes” for abuse or “no” for not abuse.

### **Predictor Variables**

Predictor variables included demographic characteristics, need for health care services, barriers to accessing health care services, physical function, depression, social provisions, cognitive ability, and assistance completing the survey.

#### *Need for and barriers to accessing health care*

Medical and other health needs in the last 12 months were measured using five questions about self-reported need for special equipment, special therapy, home health services, treatment or counseling, and dental care, with each need scored as 1, and total scores ranging from 0 to 5, with five indicating the highest need.

Barriers to accessing care were represented as an index score created from six items asking how much of a problem it was to obtain service or equipment in the following areas: the

care the respondent or doctor deemed necessary, special medical equipment, special therapy, home health services, treatment or counseling, and dental care. Answers were coded from 0 = not having a problem to 3 = a big problem to get care, and were summed for the six items so that the index scores ranged from 0 to 18, with higher numbers indicating both a greater need for care and greater barriers to obtaining that care.

Use of medical services was reported from two questions: number of reported visits to the emergency room in last 12 months, and number of reported visits to the doctor's office in last 12 months.

### *Physical function*

Physical function was assessed using 11 questions about instrumental activities of daily living (IADLs). Individual questions had three response choices: no dependence, partial dependence, and total dependence. An IADL percentage score was created by summing the responses to the questions answered and dividing by the number of answered questions multiplied by the maximum score per question (3), and converting it to the percentage score. The percentage scores reflected dependence in those questions that were answered and could range from 30-100%, with higher scores indicating greater functional dependence. The percentage score was used for regression analysis. For bivariate analyses, raw scores in individual IADLs were used with the Mann-Whitney U test.

### *Depression*

Depression was assessed using the Geriatric Depression Screen and a total score was a sum of all answers in the depressed direction, with a score higher than five indicating depression.

### *Social Provisions*

Social provisions were assessed using a twelve-question modified Social Provisions Scale and responses were recorded on a scale from 1 = strongly disagree to 4 = strongly agree.<sup>12</sup> A

percentage total score was created similar to the IADL percentage score. Percentage scores ranged from 46% to 100%, with a higher score indicating greater social provisions. In addition to a total score, scores were analyzed for the six subscales, in order to examine the relative discriminatory power of each concept. Four questions from two subscales were used to create a simplified binary measure of social provisions, which was reported and used in the logistic regression analyses. A response of “disagree” or “strongly disagree” to any two of the four questions resulted in a score of “low” indicating low social provisions.

In addition, yes or no responses to “Do you have enough money to get the things you need?” and “Are you alone a lot?” were included to assess financial resources and sense of aloneness.

#### *Cognitive Ability*

Cognitive ability was assessed by clock drawing test and scored using the Watson method.<sup>15</sup> Watson scores greater than or equal to four were coded as cognitively impaired.

#### *Help with survey completion*

Respondents were asked whether they had help completing the survey and what type of help was received: partial assistance (“read you the questions and/or wrote down the answers you gave”), total assistance (“answered the questions for you”), or other (“helped in some other way”).

### **Analysis**

#### *Identification of characteristics associated with abuse*

To discern significant associations between characteristics and reported abuse status, bivariate statistical tests were performed appropriate to independent variable type: chi-square test and the Mann Whitney U test. Differences in mean levels of individual IADLs, as well as a

composite IADL score, were analyzed to determine if there were differences in specific functional abilities between the groups of participants who were abused and not abused. These same analyses were performed on the Had Help and No Help groups.

#### *Identification of predictors of abuse*

Logistic regression was used to identify characteristics that independently predicted elder abuse for all participants and for the Had Help and No Help groups. Factors which were significant at the  $p < .10$  level in the bivariate analyses for the entire group were entered into a logistic regression model. Odds ratios and 95% confidence intervals were obtained for the relevant predictor variables from each regression model. The overlap index, a non-parametric index, was computed to measure how well the logistic regression equation discriminated between respondents who reported abuse and non-abuse. An overlap index of 0.0 (perfect model) would indicate that the probabilities from the logistic regression equation were all greater for the abused subjects who were socially deprived compared with the non-abused subjects. An overlap index of 1.0 would indicate that the median probabilities from the logistic regression were the same for the two groups.<sup>17</sup> Statistical analyses were performed using SPSS version 10.1.

#### *Identification of Social Provision Scale concepts with discriminatory power*

Logistic regression of the six Social Provision subscales with elder abuse was performed, and indicated that reliable alliance and reassurance of worth concepts were significant predictors of elder abuse. Because the four questions representing these two concepts were as powerful as the 12 question scale used in the survey, a simplified measure of social provisions was generated by using the four questions from the two subscales. The simplified measure as well as the six concept subscales were included in the bivariate analyses (Table 2).

## RESULTS

### *Sample*

Surveys were sent to 1,017 elderly Iowans. Four hundred and ninety-eight surveys were returned for a 49% return rate. Three-fourths of the returns were from females and the respondents' ages ranged from 65 years to 101 years with a mean age of 79 years. The majority of the respondents (96%) were white and 16 (3%) were African-American. Seven hundred and twenty-one (71%) of the sample did not have personal insurance while the remaining had a variety of hospital, physician, dental, drug, and vision coverage insurance combinations. The majority had Medicare Part A and B coverage while only 3% had no coverage. There were no significant differences between responders and non-responders for gender, age, race, or insurance coverage.

### *Abuse Prevalence*

An elder abuse prevalence of 20.9% (104 of 498) was reported for this population of frail elders based on the composite elder abuse score. Seventy-nine respondents (15.8%) reported one abuse type, 20 (4.0%) reported two, and five (1.0%) reported three types. An abuse prevalence of 17.5% was reported for the composite financial exploitation score (Table 1).

### *Characteristics associated with abuse of overall respondents*

Those persons who reported elder abuse had greater barriers to care, lower social provisions, a greater number of emergency room and physician visits in the past year, did not have enough money, and were alone a lot, depressed, and younger ( $p < .05$ ; Table 2). Mean levels of social provisions were significantly lower for the abuse group on four of the social provision subscales (attachment, guidance, reliable alliance, and reassurance of worth) (Table 2).

Having help completing the survey was not significantly associated with reported abuse status. Fifty-five participants had help and screened positive for abuse, with 21.5% of those who

had partial assistance and 15.5% of those who had total assistance screening positive for abuse, compared with nearly 23.5% of those who had no help. The majority of participants (59.4%) were cognitively impaired; this factor was not significantly associated with abuse status.

Overall mean IADL score was not significantly different between the abuse and non-abuse groups, but there was a trend towards lower reported dependence in the abused group. Individual IADL scores indicated that participants reporting abuse and those not reporting abuse had similar levels of dependence in all IADLs except that participants who reported abuse were more independent in answering the telephone, shopping, and managing money than participants who were not abused ( $p < .05$ ; Table 3).

#### *Significant predictors of abuse status among overall respondents*

When all participants were considered, variables that were statistically significant predictors of abuse status ( $p < .05$ ) were the modified social provisions measure, more emergency room visits, being alone a lot, and not having enough money (Table 4). Including survey help status as a variable in the logistic regression did not substantially effect the results for the overall group.

#### *Characteristics of the Had Help and No Help groups*

The participants were divided into two groups based on if they Had Help (57%) or No Help (41%) completing the survey. Individuals in the No Help group had a lower mean age, a lower mean score for guidance and reliable alliance, and less dependence in IADLs. They were more likely to be female, have impaired cognitive abilities, and report being alone a lot. The mean depression scores for the No Help group were less depressed overall regardless of abuse status: No Help and Abused: 5.8, No Help and Non Abused: 4.3; Had Help and Abused: 6.9, Had Help and Non Abused: 6.1.

*Significant predictors of abuse for the Had Help and No Help groups*

For both the Had Help and No Help groups, low scores in reliable alliance and reassurance of worth, and reporting being alone a lot were significant predictors of abuse. Additional characteristics that were significant predictors of elder abuse differed for the Had Help and No Help groups. For the Had Help group, reporting not having enough money was a significant predictor, with age and barriers trending towards significance ( $p < .10$ ). For the No Help group, more emergency room visits was a significant predictor, with depression trending towards significance ( $p < .10$ ) (Table 4). The computed overlap index was 0.52, which shows moderate discrimination of the logistic regression model.

**DISCUSSION****Overall Rates of Abuse**

This study of self-reported abuse among frail elders found higher prevalence rates than reported in other studies. The higher abuse rates found in this survey may be attributable to the vulnerability of the population, the sensitivity of the questions, the lack of a time specification for when the abuse occurred, the lack of a severity or consequence measure in the abuse questions or definition used, or a greater reporting of abuse through self-report as opposed to third party assessment which assess abuse at a single point in time.

A study of a similar population in Michigan reported a potential abuse prevalence of 4.7%, based on third party assessment using targeted sections of the Minimum Data Set for Home Care, but did not include financial exploitation or sexual abuse.<sup>18</sup> A postal survey of women in Australia found estimated abuse rates of between 1% and 6% prevalence for vulnerability to psychological abuse and 1% to 4% coercive behavior involving physical abuse,<sup>19</sup> 2-3% physical abuse, 3-8% psychological abuse.<sup>20</sup>

Other elder abuse prevalence estimates in general elderly populations using various methods and abuse definitions found similarly low percentages (2-6%)<sup>21, 22, 23, 24</sup> Comijs and colleagues<sup>24</sup> found 1-year prevalence of 3.2% for verbal aggression, 1.2% for physical aggression, 1.4% for financial mistreatment, and 0.2% for neglect. A 1997 study among health and social service agency community-based cases found a prevalence of 13%.<sup>25</sup>

The five questions used to screen for potential elder abuse in this study were similar to those found in validated self-report abuse screens in the literature.<sup>1, 20</sup> Previous work<sup>1, 2</sup> found that short abuse screens were as effective as longer screens in discriminating between abused and non-abused groups.

### **Characteristics Associated with Elder Abuse**

#### *Similarities with characteristics identified in third-party assessment studies*

Low social provisions, greater interaction with emergency departments, and a sense of aloneness are consistently associated with abuse in both self-report and third-party assessment settings. An understanding of factors which are consistently associated with abuse across studies has important application to designing interventions aimed at reducing actual and potential abuse.

#### *Social provisions*

Working with a similar population (Michigan waiver group) in which abuse was identified by third party assessment, Shugarman and colleagues<sup>18</sup> found that abuse was significantly associated with lower social function and a brittle support system. Our study supports this, and is consistent with other studies finding associations between likely abuse and measures such as perception of fewer social resources<sup>26</sup>, social isolation and lack of social support<sup>25</sup>.

*Interaction with emergency departments*

Lachs and colleagues<sup>28</sup> found that victims of elder abuse were more likely to interact with emergency departments, with 62.6% of elderly victims of physical abuse being seen in an emergency department at least once in the five years surrounding initial abuse identification; this is consistent with our findings. A large postal survey of elderly women found that those with higher vulnerability scores made more visits to medical specialists<sup>20</sup>, which is similar to our finding of an association between physician visits and positive abuse status.

*Functional ability*

Our findings suggest that in a vulnerable and dependent population, incremental increases in dependence in IADLs do not appear to increase potential for abuse. Work with a similar population<sup>18</sup> found that total dependence in BADLs such as hygiene, dressing, bladder incontinence, and bowel incontinence, were not significant predictors of abuse status.

The seemingly paradoxical relationship between increased independence in some IADLs and abuse suggest that misjudgment of functional abilities by the self-reporting participant or the person helping that participant self-report may be linked to potential for abuse. A large self-report postal screen study of elderly women, which included responses by proxies as well as target respondents, found a negative correlation between the factor Vulnerability (a subset of the VASS abuse screen) and needing help with daily tasks.<sup>19</sup> Lack of understanding of medical condition on the part of both the caregiver and the care receiver have been identified as risk factors for elder abuse.<sup>25</sup>

*Differences with characteristics identified in third-party assessment studies*

Identification of what information is reliably self-reported is necessary to the design of instruments to identify abuse cases or to assess prevalence. Factors which are important

indicators in third party assessment may be prohibitively hard to assess through self report methods, yet self-report methods are the most practical form of data collection for prevalence studies in a large population sample.

### *Cognitive ability*

Cognitive impairment was not a significant predictor of abuse status. This finding differs from that of third-party assessment studies<sup>17, 26, 27</sup> and may reflect difficulties of obtaining accurate self-reporting of impairment. A postal survey validation study found that a single question about the presence of memory problems had a lower diagnostic accuracy (0.47) against standardized geriatric assessment instruments and clinical assessment than did questions about other geriatric conditions measured.<sup>29</sup>

In addition, the fact that cognitive impairment was not a significant predictor may be due to non-targeted individuals completing the clock drawing on behalf of subjects, which could explain the unexpected finding that a lower percentage of subjects in the Had Help group were cognitively impaired.

## **Having Help Affects Survey Responses**

### *Overall*

Our study found that the Had Help and No Help groups were distinct, and that different factors were significant as predictors of abuse status for these two groups. While having help was not a significant barrier to reporting abuse, it is important to interpreting survey answers.

The Had Help group did not report abuse at rates different from the group that completed the survey independently. This finding is similar to earlier work using telephone and in-person interview methods. A random sample survey of older adults, which included proxy interviews by the primary caregiver to the elderly respondent in cases where the intended respondent was

incapable, found that rates of reported maltreatment were higher among the proxy interviews than among interview with designated elderly, perhaps as a result of incapacitation increasing the risk of maltreatment.<sup>22</sup>

The Had Help group had a significantly higher mean GDS: it is possible that some items on the GDS measure functional limitations in addition to depression, accounting for this association, as the Had Help group was also more functionally dependent. As well, the surveys of those receiving help may reflect proxy bias. A review of 24 clinical studies found that proxies tended to report emotional well-being as more impaired than did the subject.<sup>30</sup>

That the majority of respondents (57%) in the present study received help completing the survey reinforces the need to record and consider the differences between assisted and unassisted responses. Studies on frail elders often use proxy or assisted responses, but the analyses do not uniformly distinguish between response types. A large study of elderly Australian women included surveys completed by family members, friends, or carers on behalf of impaired women, but did not report the percentage of participants who received survey help, or compare results for those who had help in survey completion or those who did not.<sup>19</sup> The percentage of assisted responses in a postal survey may be significant, even in a general elderly population. A study among elderly veterans found that 11% reported having assistance completing a postal survey about common geriatric conditions.<sup>29</sup>

#### *Had Help and No Help groups*

The differences between characteristics associated with abuse in the Had Help and No Help groups identified in the present study suggest that, while help does not preclude abuse-positive answers, it does affect survey responses in such factors as functional and cognitive ability.

### *Functional abilities*

Among the Had Help group, non-abused participants were more likely to be dependent in answering the telephone, shopping and managing money than were abused participants. The variations in direction are compelling. Abused participants who complete their own surveys may misjudge their abilities. Individuals who assist with completing or who complete on behalf of participants may likewise misjudge abilities, or may accurately assess ability but inaccurately respond to abuse questions (especially in the case of managing money and financial exploitation). As well, there is a distinction between physical, emotional, and psychological abuse, which the abused elder would be aware of, and financial exploitation, of which, if ongoing, the elder may remain unaware. Further work would be necessary to examine the relationship between self-reporting, assisted self-reporting, reported functional ability, and potential for abuse. Discrepancies between perceived and actual functional ability on the part of the elder and the caregiver may be significant in cases of self-neglect and unintentional or passive neglect.

### *Depression*

Among the Had Help group, abused and non-abused participants did not have significantly different depression scores. It is possible that having help completing a survey is a barrier to identifying depression, with those subjects who are abused under-reporting depression, perhaps in order to not demonstrate vulnerability to the helper. Alternately, it is possible that those who have help completing the survey and are depressed are also suffering mistreatment that is not reported on an assisted self-screen. An additional possibility is that a higher GDS score may be related to functional dependence unrelated to abuse status, and thus score increases otherwise attributable to abuse are masked.

The different constellations of abuse predictors (Table 4) suggest that future tools for survey abuse prevalence or predicting risk of abuse in a practice setting through self-screen should be validated among both assisted and unassisted respondents.

### **Implications for Further Study**

Any attempt to survey a large population sample of elder adults will likely use assisted or proxy responses to mitigate the problem of missing data. The factors that remained in common between the Had Help and No Help groups were having fewer social provisions measured by the reliable alliance and reassurance of worth subscales and reporting being alone a lot. Other significantly associated characteristics varied between the groups suggesting that self-report postal screens for abuse among the elderly should record and take into account the differing responses among those who complete the screen on their own and those who have assistance completing the screen.

Awareness of differing responses may also inform the clinical assessment of an individual considered at risk for or suspected of suffering abuse. Questions not related directly to abuse, such as social provisions, access to care, and visits to the emergency room, may also be useful in identifying at-risk elders.

Awareness of the potential for contradictory associations, such that self-report screens find greater independence associated with abuse in some IADLs and third party assessments find the opposite association, may be useful in a clinic setting: it is possible that the discrepancy between the elder or caregivers assessment of function or mood, and the health professionals' assessment, is a useful predictor of potential abuse or neglect.

Finally, elders who had positive abuse screens reported having one or more visits to the emergency room in the past year (69%). Sixty-eight percent of those abused had four or more

physician visits in the twelve months prior to the survey; although victims report barriers to care, they do come in contact with physicians. This suggests that screening for elder abuse in the emergency room and the physician's office may be an effective method of identifying elders suffering from neglect, financial exploitation, and psychological abuse as well as physical abuse, which may be more likely to show physical evidence.

### **Strengths and Limitations**

The strengths of this study include the sample size, the sample population of community-dwelling elders, and sound data analysis. A limitation of this study was the lack of an external verification of elder abuse. The results of the abuse screen could not be corroborated against a gold standard of elder abuse. Positive abuse screens were compared against other characteristics as self-reported by the individual. Further work could compare self-report screens of abuse with an independent assessment identifying actual abuse, social provisions, cognitive and functional status, and other characteristics. A recent study of yield, reliability, and validity of a postal survey screening for common geriatric conditions (but which did not include screening questions for potential abuse) showed accuracy ranging from 0.48 to 0.78 for self-reporting on single item questions and clinical assessment.<sup>29</sup>

### **Summary**

Prevalence of abuse estimated in this study on frail elders was higher than that found in general population studies, and higher than that found in a study using third-party assessment in a similar population, but which did not estimate financial or sexual abuse. Abuse was associated with lower social provisions and greater interaction with emergency departments, but was not associated with cognitive or functional impairment. Assistance with survey completion was not an absolute barrier to self-reporting abuse, but having help completing the self-report screen

showed different patterns of significant associations between abuse and characteristics. Future studies using self-report of abuse should differentiate responders who are assisted from those who are not.

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**Table 1. Distribution of Positive Abuse Screens**

| Question  | Persons with Positive Answers (%)<br>N = 104 of 498 | Percent of Positive Abuse Type by Answers<br>N = 152 | Abuse Type              | Persons with potential abuse types (%)<br>N = 136 | Percent of abuse by type<br>N = 136 |
|---|---|--|-------------------------|---|-------------------------------------|
| 1. Has anyone taken anything that was yours without asking?                             | 67 (13.5)   | 44.1   | Financial Exploitation* | 87 (17.5)   | 64                                  |
| 2. Have you ever signed any documents you didn't understand?                            | 36 (7.2)  | 23.7   |                         |   |                                     |
| 3. Are you afraid of anyone at home?  | 5 (1.0)   | 3.3  | Psychological Abuse     | 5 (1.0)   | 4                                   |
| 4. Has anyone ever failed to help you take care of yourself when you needed help?       | 34 (6.8)  | 22.4   | Neglect                 | 34 (6.8)  | 25                                  |
| 5. Has anyone physically hurt or touched you in a way that made you feel uncomfortable? | 10 (2.0)  | 6.6  | Physical Abuse          | 10 (2.0)  | 7                                   |

\*calculated from a positive response to one or both questions of “taken without asking” and “signed documents without understanding”

**Table 2. Respondent Characteristics and Health Care Needs by Abuse Status for All Participants and Two Groups.**

|                                       | <b>Abused</b>     | <b>Non-Abused</b> |                 |
|---------------------------------------|-------------------|-------------------|-----------------|
|                                       | N = 104           | N = 365           |                 |
|                                       | Mean (S.D.)       | Mean (S.D.)       | P-value         |
| <b>Age</b>                            | <b>77.7 (7.3)</b> | <b>79.7 (7.9)</b> | <b>.015</b>     |
| <b>Social Provisions</b>              | <b>70 (11)</b>    | <b>76 (9)</b>     | <b>&lt;.001</b> |
| Attachment                            | 7.18 (1.78)       | 7.80 (1.40)       | .002            |
| Guidance                              | 7.60 (1.58)       | 8.18 (1.40)       | .003            |
| Nurturance                            | 5.39 (1.85)       | 5.52 (1.80)       | .534            |
| Reassurance of Worth                  | 6.77 (1.73)       | 7.40 (1.36)       | .002            |
| Reliable Alliance                     | 8.10 (1.47)       | 8.71 (1.29)       | <.001           |
| Social Integration                    | 7.33 (1.45)       | 7.58 (1.39)       | .180            |
| <b>Depression</b>                     | <b>6.3 (3.5)</b>  | <b>5.4 (3.1)</b>  | <b>.011</b>     |
| <b>Need for Care</b>                  | <b>2.5 (1.2)</b>  | <b>2.2 (1.2)</b>  | <b>.071</b>     |
| <b>Barriers to Care</b>               | <b>5.2 (3.0)</b>  | <b>4.1 (2.0)</b>  | <b>&lt;.001</b> |
| <b>IADLs</b>                          | <b>.62 (.14)</b>  | <b>.66 (.17)</b>  | <b>.094</b>     |
| <b>ER Visits</b>                      | <b>1.8 (2.0)</b>  | <b>1.1 (1.8)</b>  | <b>&lt;.001</b> |
| <b>Physician Visits</b>               | <b>4.2 (1.8)</b>  | <b>3.9 (1.9)</b>  | <b>.026</b>     |
|                                       | N (%)             | N (%)             |                 |
| Respondent Had Help Completing Survey | 55 (53.4)         | 220 (61.3)        | .151            |
| Female                                | 81 (77.9)         | 272 (74.5)        | .483            |
| <b>Not Having Enough Money*</b>       | <b>45 (45.5)</b>  | <b>109 (30.7)</b> | <b>.006</b>     |
| <b>Is Alone a Lot*</b>                | <b>73 (70.9)</b>  | <b>168 (47.1)</b> | <b>&lt;.001</b> |
| Impaired Cognitive Abilities          | 65 (63.1)         | 215 (60.6)        | .641            |

\*As reported by respondent

Bolded items were entered into the logistic regression model

**Table 3. Individual IADL Characteristics for All Participants and Two Groups**

|                             | Abused<br>N = 104 | Non-Abused<br>N = 365 |                 |
|-----------------------------|-------------------|-----------------------|-----------------|
| IADL                        | Mean (S.D.)       | Mean (S.D.)           | <i>P</i> -value |
| <b>Answer the telephone</b> | <b>1.2 (.47)</b>  | <b>1.4 (.67)</b>      | <b>.030</b>     |
| Make Telephone Call         | 1.3 (.59)         | 1.4 (.72)             | .058            |
| <b>Shopping</b>             | <b>2.1 (.73)</b>  | <b>2.3 (.75)</b>      | <b>.040</b>     |
| Transportation              | 2.3 (.75)         | 2.5 (.71)             | .069            |
| Prepare Meals               | 1.9 (.77)         | 1.9 (.80)             | .509            |
| Laundry                     | 2.2 (.83)         | 2.3 (.79)             | .421            |
| Light Housekeeping          | 2.3 (.74)         | 2.5 (.65)             | .110            |
| Heavy Chores                | 2.8 (.52)         | 2.8 (.46)             | .798            |
| Taking Medications          | 1.5 (.63)         | 1.6 (.71)             | .246            |
| <b>Managing Money</b>       | <b>1.6 (.72)</b>  | <b>1.8 (.83)</b>      | <b>.020</b>     |
| Transferring                | 1.4 (.58)         | 1.4 (.63)             | .482            |

**Table 4. Odds Ratios and 95% Confidence Intervals Predicting Elder Abuse for All Participants and Two Groups**

|                            | <b>Total Sample</b> |       | <b>No Help Completing Survey</b> |       | <b>Had Help Completing Survey</b> |       |
|----------------------------|---------------------|-------|----------------------------------|-------|-----------------------------------|-------|
| Constant                   | 0.047               | <.001 | 0.039                            | <.001 | 1.730                             | .797  |
| Age                        |                     |       |                                  |       | 0.957 (0.909-1.007)               | .091  |
| Modified social provisions | 4.59 (2.37-8.85)    | <.001 | 2.957 (1.007-8.628)              | .049  | 5.31 (2.28-12.7)                  | <.001 |
| More Emergency Room Visits | 1.18 (1.03-1.34)    | .014  | 1.279 (1.044-1.568)              | .018  |                                   |       |
| Barriers to Care           | 1.113 (0.995-1.246) | .060  |                                  |       | 1.125 (0.986-1.284)               | .079  |
| Does Not Have Enough Money | 1.91 (1.10-3.34)    | .023  |                                  |       | 2.37 (1.13-4.95)                  | .022  |
| Alone a Lot                | 2.38 (1.33-4.26)    | .003  | 2.943 (1.065-8.128)              | .037  | 2.12 (1.01-4.45)                  | .046  |
| GDS                        |                     |       | 1.162 (0.976-1.383)              | .091  |                                   |       |