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ABSTRACT

Elder abuse is recognized as an under-detected and under-reported social problem. Difficulties in detecting elder abuse are compounded by the lack of a standardized, psychometrically valid instrument for case finding. The development of the Hwalek-Sengstock Elder Abuse Screening Test (H-S/EAST) followed a larger effort to identify indicators and actual symptoms of elder abuse using a pool of over 1,000 items selected from various elder abuse protocols which were currently being used throughout the United States and Canada. This study examined the construct validity of the 15-item H-S/East. Results of the analyses indicated that 9 of the 15 items of the H-S/EAST significantly discriminated between three groups: (1) elders whose reported abuse was substantiated by Adult Protective Services (APS) caseworkers; (2) elders whose reported abuse was not substantiated by APS workers; and (3) a community-based comparison group. The data suggest that this short, easily administered screening device can be useful to service providers interested in identifying people at high risk of the need for protective services. The H-S/EAST should not be used to predict specific types of abuse or neglect, or to make the final decision about the substantiation of abuse or neglect in any particular case. A positive indication suggests the need for further examination rather than the actual presence of the condition. (Author/LLL)

TITLE: Validation of the Hwalek-Sengstock Elder Abuse Screening Test [a]

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ABSTRACT

Elder abuse is recognized as an under-detected and an under-reported social problem. Difficulties in detecting elder abuse are compounded by the lack of a standardized, psychometrically valid instrument for case finding. This study examined the construct validity of the 15 item Hwalek-Sengstock Elder Abuse Screening Test (H-S/EAST). Nine of these items were found to significantly discriminate between three groups: elders whose reported abuse was substantiated by Adult Protective Services (APS) case workers; elders whose reported abuse was not substantiated by APS workers; and a community-based comparison group. The data suggest that this short, easy to administer screening device can be useful to service providers interested in identifying people at high risk of the need for protective services.

KEY WORDS: construct validity, discriminant function analyses, elder abuse, elder mistreatment

Introduction

Despite the increasing attention elder abuse receives from practitioners, researchers and policy makers, the true extent of the problem remains elusive. In 1980, the House Select Committee on Aging estimated that between one half million and 2.5 million elderly persons in the United States were abused (U.S. Congress, House Select Committee on Aging, 1980). While Filinson (1989) considered these figures an overestimation of the true prevalence of abuse, Kosberg (1988) pointed out that estimates based on cases reported to social services workers are, by definition, underestimates of abuse. Pillemer & Finkelhor (1988) randomly sampled over 200 elders from the Boston area in an attempt to determine the prevalence of elder abuse. Based on their findings, they estimated that between 701,000 and 1,093,560 elderly in the United States annually experience some form of maltreatment, and that only about seven percent of elder abuse cases are reported.

The American Public Welfare Association and National Association of State Units on Aging found that state incident rates of reported elder abuse ranged from 0.8/1000 to 4.7/1000, depending on the definition of a "case" (APWA/NASUA, 1986). Tatara (1989), using the APWA/NAUSA data to extrapolate national estimates of actual abuse, determined that in the fiscal year 1985 there were between 51,000 and 186,000 cases of abuse in the U.S. (depending on how abuse was defined), among those age 60 and over.

Comparison of data from different studies is difficult because some estimates are presented as rates, others as percentages, and some are counts of actual cases. In addition, estimates of abuse vary widely for a number of reasons, including the different definitions of abuse,

the lack of population based sampling and low response rates in prevalence studies, the absence of a uniform reporting system, different approaches to case-finding and reporting, inconsistencies in the follow-up and substantiation of reported cases of suspected abuse, and an over-reliance on case workers' memories of abuse cases.

The problem of detecting elder abuse is compounded by the absence of a standardized, psychometrically valid instrument for case finding. Some researchers have utilized instruments created for detecting other types of domestic violence. Pillemer & Finkelhor (1988) used the conflict tactics scale originally designed to measure spouse abuse. This scale, however, does not address financial exploitation or neglect, both common among elder abuse victims.

There exist several assessment instruments used to identify elder abuse among individuals referred to Adult Protective Services (APS) and those seen in hospital emergency rooms (Ferguson & Beck, 1983; Quinn & Tomita, 1986; Sengstock & Hwalek, 1986). These instruments typically identify symptoms of specific types of abuse or neglect. At present, there is no short instrument which can be utilized as a screening tool to identify elders who are likely suffering abuse or who are at risk for abuse in the future. This paper presents research on the refinement of a paper and pencil self-reported elder abuse screening test which partially fills this need.

Development of the Hwalek-Sengstock Elder Abuse Screening Test

The development of the Hwalek-Sengstock Elder Abuse Screening Test (H-S/EAST) followed a larger effort to identify indicators and actual symptoms of elder abuse using a pool of over 1000 items selected from various elder abuse protocols which were currently being used throughout

the U.S. and Canada (Hwalek & Sengstock, 1986). Many of these items did not target specific symptoms of abuse or neglect, but were intended to detect circumstances which are considered correlates of the presence of elder abuse (e.g., physical or financial dependence, isolation). Identifying the correlates of abuse were of most interest in the development of a screening tool, since these could be present prior to abuse occuring. This original pool of items was subjected to data reduction techniques for purposes of developing a brief screening tool (Hwalek & Sengstock, 1986; deSouza et al., 1986).

Factor analysis of the 15 H-S/EAST items led to the recognition of three conceptual categories. Items were determined to detect either: 1) overt violation of personal rights or direct abuse; (2) characteristics of the elder which make him or her vulnerable to abuse; and (3) characteristics of a potentially abusive situation. Five items representing an overt violation of personal rights or direct abuse were: "Who makes decisions about your life - like how you should live or where you should live?"; "Does someone in your family make you stay in bed or tell you you're sick when you know you're not?"; "Has anyone forced you to do things you didn't want to do?"; "Has anyone taken or stolen things that belong to you without your O.K.?"; and "Has anyone close to you tried to hurt you or harm you recently?" Three items assess characteristics of the elderly person, such as frailty or depression: "Do you have anyone who spends time with you, taking you shopping or to the doctor?"; "Are you sad or lonely often?"; and "Can you take your own medication and get around by yourself?" Seven items are aimed at the detection of potentially abusive situations: "Are you helping to support someone?"; "Do you feel uncomfortable with anyone in your

family?"; "Do you feel that nobody wants you around?"; "Does anyone in your family drink a lot?"; "Do you trust most of the people in your family?"; "Does anyone tell you that you give them too much trouble?"; and "Do you have enough privacy at home?"

Validity of the H-S/EAST

The validty of a test refers to the accuracy with which the test measures the outcome variable it is intended to measure. There are several methods to estimate test validity, such as examining its content, concurrent, construct, predictive, or convergent validity (Magnusson, 1967). All test instruments should have some sort of demonstrated validity before being adopted for general use. The H-S/EAST can be said to be a valid test to the extent it measures actual abuse, as opposed to other problems such as depression, loneliness or poverty.

Content Validity of the H-S/EAST

Content validity, or the extent to which test items represent the domain of the concept being measured, was initially indicated for the H-S/EAST by drawing test items from the population of items included on all known existing elder abuse assessment protocols. A factor analysis procedure suggested that the 15 H-S/EAST items represent three major domains of elder abuse: overt symptoms, risk characteristics of the victim, and characteristics of the situation (Hwalek & Sengstock, 1986).

Concurrent Validity of the H-S/EAST

Concurrent validity refers to the extent to which a test score can predict a criterion variable that is available at the time the test is administered (Magnusson, 1967). This type of validity is especially

valuable for diagnostic tests used to screen for individuals needing a more comprehensive examination/investigation. In the case of the H-S/EAST, for example, it could indicate the test's ability to predict the need for a more thorough evaluation of the possibility of abuse. Data suggestive of the H-S/EAST's concurrent validity were reported in a study of 50 elders referred to a midwestern APS agency for investigation of suspected abuse (deSouza et al., 1986). The case worker's assessment of abuse was the criterion against which concurrent validity of the H-S/EAST was measured. The substantiated abused group ($n = 35$) had a significantly higher mean score on the H-S/EAST than a group ($n = 15$) whose abuse was not substantiated following APS investigation ($p < 0.01$). These results suggest that a higher score on the H-S/EAST is a valid indication of a greater probability of abuse.

Current Study of Construct Validity

Construct validity is often examined when an external criterion is not available. Construct validity can be tested in two ways. First, construct validity is indicated when the test is internally consistent, i.e., when correlations exist between each test item and the total test score. Second, construct validity can be evaluated by testing for group differences and similarities which are theoretically predicted. For example, the H-S/EAST would exhibit construct validity if the response profiles of abused elders were significantly different from those of individuals for whom abuse was not substantiated, and/or if the responses of those for whom abuse was unsubstantiated were found to be similar to a community-based comparison group. Such data would establish the value of the H-S/EAST as a clinical tool for identifying

elders at risk of abuse. The purpose of the present study was to demonstrate the construct validity of the H-S/EAST.

METHODS

The subjects for this study were selected from three groups. The first group was 170 elders determined to be victims of abuse after a comprehensive APS assessment was completed (hereafter referred to as ABUSED). In this sample, the ABUSED group included victims of one or more of the following: physical, sexual, or emotional/psychological abuse, confinement, deprivation of services, financial exploitation, passive neglect (by another) and self-neglect. The state's elder abuse statute at the time of data collection required that reports of suspected abuse in any of the above categories be investigated by trained APS case workers. The second group consisted of 42 elderly people referred to the APS system who were not found to be abused after comprehensive assessments (NONABUSED).

The third group consisted of 47 elderly patients of an inner-city family practice clinic (hereafter referred to as COMPARISON). The ABUSED and NONABUSED groups did not differ in demographic characteristics. Most were white females with an average age of 77 years. The COMPARISON group had an average age of 79 years, and was predominantly black and female. As racial differences in the H-S/EAST response profiles seemed unlikely, a racially different comparison group was selected as it permits the testing of the applicability of the H-S/EAST to a non-white population.

Clients in the ABUSED and NONABUSED groups were asked the 15 H-S/EAST questions as part of the comprehensive assessment of suspected abuse. In most cases, the clients were not aware they were being evaluated for abuse or neglect. In instances where the alleged victim was mentally confused, the APS worker completed the H-S/EAST based on perceptions of the situation prior to the final determination of abuse.

Individuals in the COMPARISON group were approached for an interview before seeing their physician and asked if they would be willing to participate in a survey to determine the types of services needed by clinic patients. All patients approached in the COMPARISON group completed the interview, and interviewers reported no difficulty in asking or obtaining answers to the questions, some of which are quite personal and sensitive.

Analyses

In order to evaluate the construct validity of the H-S/EAST, four types of data analysis were conducted. Initially, the responses to each item were contrasted among the three groups with chi-square analysis. Then the groups were compared on their mean total scores with analysis of variance. The third approach was an internal consistency analysis (using Chronbach's alpha) to determine if the test measures a unidimensional type of abuse. Finally, multivariate discriminant function analyses were used to determine which combination of items resulted in the most efficient prediction of group membership. All analyses were done using SPSSx software (SPSS Inc., 1988).

RESULTS

Table 1 presents the items which comprise the H-S/EAST and indicates the percentage of the COMPARISON, NONABUSED and ABUSED group which gave the "abused" response to each item.

INSERT TABLE 1

Bivariate Analyses

Chi-square analyses were used to compare the ABUSED with the NONABUSED, the ABUSED with the COMPARISON, and the COMPARISON with the NONABUSED on each H-S/EAST item. Table 2 presents the results of these three sets of chi-square analyses. As the table shows, there were eight items (#3, 4, 5, 7, 10, 13, 14 and 15) on which the data were in the predicted directions, i.e. the ABUSED group differed significantly from both the NONABUSED and COMPARISON groups, which did not differ from each other. Although it did not meet the traditional criteria for statistical significance ($p < 0.05$), item #12 was retained with the other eight variables on which the ABUSED differed significantly from the other two groups because it was marginally significant ($p = 0.07$) and was considered an important indicator of abuse.

INSERT TABLE 2

Mean Total Score Comparisons

Using the nine items which were significant in the bivariate analyses, analysis of variance was used to compare group mean total scores. Data from individuals who had any missing items were dropped. Complete data on all the H-S/EAST items were available for 115 ABUSED, 28 NONABUSED and 47 COMPARISON group members. Table 3 shows that individuals in the ABUSED group responded positively to an average of 3.5 items, significantly more than the mean number of those in the

NONABUSED or COMPARISON groups ($p < 0.001$). A post-hoc analysis (Newman-Keuls) comparing each pair of groups indicated that there was no significant difference in mean scores between the NONABUSED and COMPARISON groups. However, there were significant differences in the predicted direction between the ABUSED and both the NONABUSED and COMPARISON groups.

INSERT TABLE 3

Internal Consistency Analysis

Internal consistency in a test indicates that the test measures a single diminsion (e.g. "elder abuse"). If internal consistency cannot be shown, this suggests that the test measures several different dimensions (several types of abuse, for example). The internal consistency of the H-S/EAST was calculated using the 9 items selected from the chi-square analyses. The obtained Chronbach's alpha of 0.29 suggests that the test does not measure a homogeneous concept of elder abuse. As the types of substantiated abuse among this sample varied widely from physical abuse to neglect to financial exploitation, it is reasonable to assume that the predictors of these types of abuse would not be homogeneous.

Discriminant Function Analyses

Discriminant function analysis was used to determine which combination of test items yielded the most efficient prediction of group membership. Table 4 shows that a large percentage of cases (67.8%) were correctly classified when contrasting members of the NONABUSED group with those from the ABUSED group (column 2); 74.2% when contrasting the COMPARISON group with the ABUSED (column 3); and 64.0% when the COMPARISON group was contrasted with the NONABUSED group.

Finally 74.7% of the cases were correctly classified when the NONABUSED and COMPARISON groups were combined. Thus, as predicted, the discriminant function analyses showed significant predictions of group membership when comparing the ABUSED with the NONABUSED, COMPARISON, and NONABUSED + COMPARISION groups ($p < 0.001$ for all three contrasts). Also as predicted, the NONABUSED could not be distinguished from the COMPARISON group ($p = 0.672$)(column 4).

The discriminant function analyses were also useful in determining the weight of each item in predicting group membership. The standardized discriminant function coefficients for each variable may be interpreted as indices of the power of the item in predicting group membership. The lower portion of Table 4 shows the discriminant function coefficients for each item. Variable #15 ("Has anyone tried to hurt you?") discriminated most powerfully between the groups. Three items: #5 ("Do you feel uncomfortable with anyone in your family?"), #10 ("Has anyone forced you to do things you didn't want to do?"), and #13 ("Does anyone tell you that you give them too much trouble?") were similarly and importantly related to group membership ($B = 0.582$, $B = 0.580$ and $B = 0.575$, respectively). Item #4 ("Who makes decisions about your life?") added the least amount of discriminating power to the model ($B = 0.286$).

INSERT TABLE 4

In order to determine if the number of predictor items could be further reduced, a series of stepwise discriminant function analyses were conducted. These analyses indicated that two items, #10 ("Has anyone forced you to do things you didn't want to do?") and #15 ("Has anyone tried to hurt you or harm you recently?") remained the most

powerful discriminators of group membership. Additionally, it was found that six items discriminated as effectively between these two groups as the nine items. (Compare the percentage of cases correctly classified in Tables 4 and 5). Table 5 shows the six items which provided a discriminant solution as satisfactory as that using the nine-item model.

INSERT TABLE 5

Errors in Prediction

When examining the pattern of predictive errors that resulted from the discriminant function analyses, false negative errors were more likely to occur than false positives. That is, if one were relying solely on the H-S/EAST to make judgements about elder abuse, one would be more likely to fail to detect abused elderly than to falsely identify as victims elderly who are not abused. For example, in the nine item function where the ABUSED group is contrasted with the combined group, the false positive rate was 9.3% and the false negative rate was 35.7% The six item discriminant function yielded a similar pattern.

DISCUSSION

The results of this study provide preliminary evidence of the construct validity of the Hwalek-Sengstock Elder Abuse Screening Test. Taken individually, the distribution of responses on nine of the 15 items were in the predicted direction. When total scores were used, the mean total score for the ABUSED group was three times higher than that of the NONABUSED and COMPARISON groups, which did not differ from each other. The results suggest that in a clinical setting, elderly scoring a three or higher on the H-S/EAST may be at higher risk of being abused, neglected or exploited.

It is significant that, as hypothesized, the COMPARISON and NONABUSED groups had similar response profiles in spite of their differences in racial composition. Thus, the H-S/EAST appears to be an appropriate tool with both black and white samples. The interviewers reported no difficulties in administering the instrument, making it a practical tool for data collection with frail elderly.

While these results provide additional evidence of the scale's validity, the instrument should be used cautiously. Test results should only be used as a preliminary step in identifying victims, such as to "flag" cases that warrant further investigation, particularly when the investigator is relatively inexperienced in recognizing elder abuse. More information about the case, along with clinical judgement, should be used to decide whether more intensive investigation or a report of suspected abuse or neglect to adult protective services is necessary. The use of the H-S/EAST is not likely to result in unnecessary protective service investigations, as it is less likely to indicate abuse incorrectly, than fail to detect actual abuse. However, use of the H-S/EAST by inexperienced workers can result in more cases being identified than would be the case if no such test were available to them.

An important finding was the weight of two items re tive to all others. The questions "Has anyone close to you tried to hurt or harm you recently?" and "Has anyone forced you to do things you didn't want to do?" were key predictors in this research. Both items strongly suggest psychological abuse and the presence of physical abuse. The second item may also suggest violation of personal rights or even financial exploitation. It is interesting to note that psychological

and financial abuse were the most frequent types of abuse found in the midwestern state from which these data were collected, and physical abuse was the next most frequent (SPEC Associates, 1987). This highlights the need to look at the relationship between patterns of item responses and the specific type(s) of abuse and neglect that were substantiated. This can be done with larger sample sizes of each type of elder abuse and neglect.

The responses on the H-S/EAST can also be used to identify services needed by respondents. Several items speak to specific service needs such as transportation ("Do you have anyone who spends time with you, taking you shopping or to the doctor?"), personal care ("Can you take your own medication and get around by yourself?"), or substance abuse counseling ("Does anyone in your family drink a lot?"). Others ask about overall feelings of loneliness, trust and privacy. Thus, it is not only the total number of "abuse" responses given, but also the specific item responses that provide a practical guide toward further assessment of potential abuse, neglect or exploitation.

In summary, the H-S/EAST has potential as an elder abuse screening instrument for community-based social service agencies. In its current form it can be used to identify cases that warrant further assessment. It should not, however, be used to predict specific type(s) of abuse or neglect, or to make the final decision about the substantiation of abuse or neglect in any particular case. Like screening tests used in medical settings, a positive indication suggests the need for further examination rather than the actual presence of the condition.

Further psychometric research is needed on this tool. A prospective cohort study would make it possible to examine the H-S/EAST's predictive validity (the extent to which it predicts abuse at a later date). Administering the H-S/EAST and another elder abuse detection instrument to the same sample would provide information regarding its convergent validity (agreement between different types of measurements of the same construct). Replication of this study with a larger sample of APS referrals would provide data to test the H-S/EAST's ability to identify specific types of abuse and neglect. Using the instrument in a large community sample with follow-up assessment of a random sample of cases would provide further information by which to evaluate the concurrent validity of the H-S/EAST in a community sample. The reliability of this instrument also needs investigation. Specifically, inter-rater reliability would help determine whether subjective judgement of the rater in place of the direct responses of the elderly is valid in cases where mental incompetency is suspected. Finally, the next phase of this research should also attempt to identify other indicators that may further increase the test's precision in detecting cases of abuse.

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Table 1. Percentage of COMPARISON, NONABUSED and ABUSED giving the "Abused" response [a] to each Hwalek-Sengstock Elder Abuse Screening Test item.

Hwalek-Sengstock Elder Abuse Screening Test Items	Percent of COMPARISON Giving "Abused" Response [b]	Percent of NONABUSED Giving "Abused" Response [c]	Percent of ABUSED Giving "Abused" Response [d]
1. Do you have anyone who spends time with you, taking you shopping or to the doctor?	48.9	9.7	29.2
2. Are you helping to support someone?	55.3	71.9	72 6
3. Are you sad or lonely often?	27.7	33.3	59.0
4. Who makes decisions about your life - like how you should live or where you should live?	12.8	9.7	27.2
5. Do you feel uncomfortable with anyone in your family?	17.0	29.0	62.6
6. Can you take your own medication and get around by yourself?	4.3	31.3	50.4
7. Do you feel that nobody wants you around?	8.5	3.2	26.9
8. Does anyone in your family drink a lot?	19.1	7.1	28.9
9. Does someone in your family make you stay in bed or tell you you're sick when you know you're not?	6.4	0.0	5.1
10. Has anyone forced you to do things you didn't want to do?	4.3	12.9	41.0
11. Has anyone taken things that belong to you without your O.K.?	10.6	21.9	37.6
12. Do you trust most of the people in your family?	4.3	16.7	35.6
13. Does anyone tell you that you give them too much trouble?	4.3	10.0	38.1
14. Do you have enough privacy at home?	2.1	9.7	32.6
15. Has anyone close to you tried to hurt you or harm you recently?	2.1	0.0	45.9

[a] A response of "no" to items #1, 6, 12, and 14; a response of "someone else" to item #4; and a response of "yes" to all others was scored in the "abused" direction.

[b] Number responding to each item was 47.

[c] Number responding to each item ranged from 28 to 32.

[d] Number responding to each item ranged from 132 to 139.

Table 2. Results of pairwise chi-square analyses comparing the COMPARISON, NONABUSED and ABUSED groups on the H-S/EAST items.

Hwalek-Sengstock Elder Abuse Screening Test Items	COMPARISON VS. NONABUSED	COMPARISON VS. ABUSED	NONABUSED VS. ABUSED
1. Do you have anyone who spends time with you, taking you shopping or to the doctor?	$p < 0.001$	$p < 0.05$	$p < 0.05$
2. Are you helping to support someone?	NS	$p < 0.05$	NS
3. Are you sad or lonely often?	NS	$p < 0.001$	$p < 0.05$
4. Who makes decisions about your life - like how you should live or where you should live?	NS	$p < 0.05$	$p < 0.05$
5. Do you feel uncomfortable with anyone in your family?	NS	$p < 0.001$	$p < 0.01$
6. Can you take your own medication and get around by yourself?	$p < 0.01$	$p < 0.001$	NS
7. Do you feel that nobody wants you around?	NS	$p < 0.05$	$p < 0.01$
8. Does anyone in your family drink a lot?	NS	NS	$p < 0.05$
9. Does someone in your family make you stay in bed or tell you you're sick when you know you're not?	NS	NS	NS
10. Has anyone forced you to do things you didn't want to do?	NS	$p < 0.001$	$p < 0.01$
11. Has anyone taken things that belong to you without your O.K.?	NS	$p < 0.01$	NS
12. Do you trust most of the people in your family?	NS	$p < 0.001$	$p = 0.07$
13. Does anyone tell you that you give them too much trouble?	NS	$p < 0.001$	$p < 0.01$
14. Do you have enough privacy at home?	NS	$p < 0.001$	$p < 0.05$
15. Has anyone close to you tried to hurt you or harm you recently?	NS	$p < 0.001$	$p < 0.001$

Table 3. Mean scores of ABUSED, NONABUSED and COMPARISON groups on the 9 item version of the Hwalek-Sengstock Elder Abuse Screening Test.

	COMPARISON (n=47)	NONABUSED (n=27)	ABUSED (n=109)
Mean Score [a]	0.8	1.1	3.5

[a] $F = 34.9$; $p < 0.001$

Table 4. Discriminant function analysis of nine Hwalek-Sengstock Elder Abuse Screening Test items.

	NONABUSED + COMPARISON VS. ABUSED	NONABUSED VS. ABUSED	COMPARISON VS. ABUSED	COMPARISON VS. NONABUSED
Canonical Correlation	0.558	0.437	0.518	0.304
Wilks' Lambda	0.689	0.809	0.732	0.907
X^2	68.4	28.9	48.6	6.6
df	9	9	9	9
p-value	0.001	0.001	0.001	0.672
Discriminant Function Coefficients:				
(#15) Anyone hurt you?	0.796	0.812	0.743	-0.282
(#5) Anyone make you uncomfortable?	0.582	0.499	0.668	0.431
(#13) Anyone say you're trouble?	0.580	0.549	0.588	0.195
(#10) Anyone force you against will?	0.575	0.505	0.614	0.395
(#14) Have privacy at home?	0.534	0.470	0.561	0.390
(#12) Trust everyone in your family?	0.451	0.341	0.525	0.569
(#3) Often depressed or lonely?	0.398	0.390	0.434	0.149
(#7) Feel nobody wants you around?	0.376	0.457	0.329	-0.301
(#4) Who makes decisions about your life?	0.286	0.377	0.243	-0.277
Percent of cases correctly classified	74.7%	67.8%	74.2 %	64.0%

Table 5. Discriminant function analysis of six Hwalek-Sengstock Elder Abuse Screening Test items.

	NONABUSED + COMPARISON VS. ABUSED	NONABUSED VS. ABUSED	COMPARISON VS. ABUSED	COMPARISON VS. NONABUSED
Canonical Correlation	0.549	0.424	0.514	0.275
Wilks' Lambda	0.699	0.820	0.736	0.924
X^2	69.5	29.1	50.3	5.7
df	6	6	6	6
p-value	0.001	0.001	0.001	0.461
Discriminant Function Coefficients:				
(#15) Anyone hurt you?	0.806	0.846	0.735	0.321
(#5) Anyone make you uncomfortable?	0.606	0.524	0.694	-0.539
(#13) Anyone say you're trouble?	0.553	0.505	0.576	-0.399
(#10) Anyone force you against will?	0.535	0.451	0.588	-0.585
(#7) Feel nobody wants you around?	0.375	0.471	0.318	0.359
(#4) Who makes decisions about your life?	0.271	0.332	0.244	0.147
Percent of cases correctly classified	73.9%	67.1%	72.8%	74.0%