

ORIGINAL STUDIES

Development and validation of a questionnaire about the attitude and exposure of aged-Puerto Ricans to abuse and neglect

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Background: Most studies about abuse, mistreatment and neglect of the aged have relied upon definitions provided by professionals and not the aged themselves whereas studies point out that definitions given by the aged do not correspond with those of professionals. Limited attention has been given to this topic in Puerto Rico and no studies to date have relied upon a validated and reliable questionnaire in Spanish for the Puerto Rican aged.

Objectives: To develop and validate an instrument in Spanish in order to measure the opinion, attitude and exposure of aged Puerto Ricans to abuse, mistreatment and neglect.

Methods: A 107 item questionnaire was developed using as a guide definitions and examples of abuse, mistreatment and neglect provided by the National Center on Elder Abuse of the United States. The sample was made up of 430 aged residing in community who were willing to participate. Interviews were carried

out from August to December 2004. The questionnaire scale of response was “yes” “no” and “neutral”. Item analysis, internal consistency reliability using Cronbach’s alfa index and factor analysis using maximum likelihood estimation technique were performed.

Results: Results showed adequate estimations of validity and reliability. The final form of the questionnaire was made up of 57 items of these 34 are related to attitude and 23 to exposure of the aged to abuse, mistreatment and neglect.

Conclusions: The validity of the constructed instrument has been documented as least preliminarily. Thus this pilot study makes a contribution to the field of psychometric evaluation, social gerontology and related disciplines.

Key words: Gerontology, Psychometric evaluation, Puerto Ricans, Abuse, Mistreatment, Neglect.

Experts believe that the number of reported cases of abuse, mistreatment, and neglect in the elderly are only the tip of the iceberg as to the genuine numbers, since most cases go unreported. Establishing the real magnitude of the situation is difficult, if not impossible. The problem rests in the lack of agreement when defining the terminology (1) and that the literature related to risk factors is limited and inconsistent (2). Also, the cultural norms regulating family life and the social roles of the elderly will have an impact in how the elderly are treated within the society and the family and, subsequently, how abuse, mistreatment, and neglect are perceived. In each social group, heterogeneity exists

because not all families circumscribe to the traditional cultural values that support the importance of the family as a primary responsibility over that of the individual (3). This in turn, impacts how the elderly should be cared for. In the traditional Puerto Rican culture, an authority hierarchy exists based on gender and age in which the oldest members are ascribed authority and respect (4). Abuse of the elderly continues to be mainly an invisible problem because the Puerto Rican family still retains many aspects of its Hispanic ethnic identity and cultural values. One of these values known as the family, places great emphasis on family unity, loyalty, and thwarts elderly family members’ discussion about mistreatment. Mistreated elders and their aggressors adhere to a code of silence. Many factors such as fear, shame, denial, loyalty, relations of interdependence, among other issues, play a role in the sub-estimation of the problem (5). Today, one senses the situation of abandonment, limited values, and lack of care which corrodes this population’s group self-esteem and quality of life.

Most studies measuring elderly abuse, mistreatment, and neglect have depended upon definitions of situations

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presented by service providers to the elderly and not on the definitions given by the elderly themselves. Researchers have pointed out that structural variables such as race, ethnicity, and culture can influence attitudes towards what constitutes abuse, mistreatment, or negligence (6, 7). The available research questionnaires used in the United States are inadequate for measuring the problem among Puerto Ricans since they have not been validated in Hispanic populations and are written in English. This, in turn, makes difficult an understanding of the phenomena aging/aged/violence. Puerto Rico has, historically, lacked instruments to measure phenomena that have relevant norms, are valid and reliable (8). Also, studies point out that the definitions given by the aged in relation to abuse differ from those given by professionals, which can confound findings (9, 10). Researchers have recommended including seniors and caregivers in the definition process (5, 11-15). The limited attention given to the problem in the research literature and the lack of an instrument in Spanish for the Puerto Rican aged motivated the researcher in carrying out the present study, which specifically validates the designed instrument in Spanish and establishes its reliability. Hopefully, a contribution is being made to the knowledge base as well as to the attitudes and exposure of the Puerto Rican elderly to abuse and neglect.

Methodology

From August to December 2004, face to face interviews were carried out in 430 seniors from various municipalities in the Island. Undergraduate college students from a social science course were recruited for the interview process and were given course credit for their participation. The elderly interviewed were those residing in the student's community, in that of an acquaintance, or of relative residing elsewhere. Populations residing in high rise buildings for seniors, nursing homes, or attending senior centers were excluded from the study. The sample of respondents was based upon availability. The majority of the participants were from the municipality of Arecibo (22%), followed by Lares (12%), and Hatillo (10%). Most respondents were female (60%) from the rural zone (66%) of the island, and of the cohort group within the ages of 60-69 years (51%). Married (52%) and widowed (33%) was the predominating status. In terms of schooling, most respondents had attained an elementary academic level (42%). Regarding the predominant occupational category, females had generally been homemakers (41%) and males, blue collar workers (28%). In terms of living arrangements, the majority resided with their spouse (38%), followed by residing by themselves (21%) and with children (19%).

The participating elderly were visited in their homes where the purpose and implications of participation were explained as well as their rights. An informed consent form was signed by the participants before the interview process was begun. The interviewers read all the questions and the responses were registered in individual questionnaires. Later, the responses were entered into the SPSS statistical package program, excluding information identifying the respondent. The examples of abuse and neglect were based on those elaborated by the United States National Center on Elder Abuse in 1998.

The developed questionnaire was divided into three parts. The first consisted in eight questions on general socio-demographic information (municipality, zone of residence, sex, age, marital status, years in school, previous occupation and living arrangements). The second part had seventy-six statements focused on measuring the respondents' attitude toward abuse and neglect in the aged. Lastly, part three was made up of twenty-three statements exploring the types of situations of exposure being confronted by the aged. The scale of responses used in the questionnaire was 'yes', 'no' and 'neutral'.

A study of validity and reliability was carried out according to the guidelines provided in the book "The Principles for the Validation and Use of Personnel Selection Procedures" (16). An analysis of questions was carried out using the correlation "total item" as an index of discrimination (17). Internal consistency reliability was estimated using the Cronbach's Alfa (18) technique and an analysis of factors was carried out using an estimation of maximum likelihood. This technique allows a more precise measure of the instrument pretending to measure latent characteristics (19). Those questions that obtained discrimination indexes of .30 or more were retained. Those that had a reliability consistency of .70 were selected. Those questions which had an initial factor weight between .30 and more, and obtained an Eigen value greater than 1.00 were also selected. The analysis of multiple reactors was carried out during the month of January 2005 to establish the validity of the questionnaire. The purpose of the examination of multiple reactors is to identify in the special matrix associated variables in the questionnaire and how they explain and are associated among themselves in relation to attitude and exposure of the aged to abuse, mistreatment, and neglect. A coefficient of 0.30 or more demonstrated that the question is adequate and contributes to the exploration of abuse, mistreatment, and neglect in terms of the utilized tests. Factorial analysis points out the questions with a useful charge, reducing the number of questions from the original questionnaire from 99 to 57. After this, the components were identified and the questions were regrouped from the highest to the lowest charge in each component. The maximum likelihood technique was used. Also the number of questions

with an Eigen value of 1.00 or more were identified which explains the percentage of variance. It has been established that those questions that do not reflect adequate indicators of validity and reliability should be eliminated (20). The final questionnaire was made up of 34 statements relating to attitude and 23 statements related to exposure.

Results

In the analysis of the 76 attitude questions, 34 were retained which reflect an internal consistency reliability index of .87 in the Cronbach's Alpha. According to De Vellis (2001), the index is adequate because it is greater than .70. Additionally, a factor analysis was carried out with the selected questions in order to see if they appear to measure one dimension. The maximum likelihood technique was utilized where the criteria

was an Eigen value of 1.00 or more. The Eigen value obtained was 4.715 and explains a variance of 16.841. Table 1 shows that the discrimination index ranged between .30 and .92 and the factor loading charge ranged between .32 and .96.

In the analysis of the 23 statements, all were maintained. They reflect a reliability index of internal consistency of .89 in the Cronbach's Alpha. According to De Vellis (2001), the index is adequate because it is greater than .70. Additionally, a factor analysis was carried out with the 23 selected statements in order to see if they appear to measure one dimension. The maximum likelihood technique was utilized where the criteria had an Eigen value of 1.00 or more. The Eigen value obtained was 6.56 and explains a variant of 28.54. Table 2 shows that the discrimination index ranged between .35 and .64 and the factors of initial charge ranged between .34 and .74.

Table 1. Selected statements, indexes of discrimination and initial factor weight for attitude in the elderly towards abuse, mistreatment and neglect of the aged. (N=430)

Attitude Statements	Discrimination Index	Initial Factor Load
Children/relatives should not scream at the aged.	.83	.83
Children/relatives should not take money from the aged without permission.	.89	.86
Children/relatives should not take personal things from the aged without permission.	.88	.87
Children/relatives should not hit the aged.	.90	.95
Children/relatives should not threaten the aged.	.92	.96
Children/relatives should not leave their parents without a home upon selling it without permission.	.89	.93
Abuse is the conduct that can cause serious injury or death.	.37	.40
Mistreatment of the aged tends to increase in magnitude over time.	.45	.48
The abused aged is fearful.	.35	.37
Physical abuse results in bone fractures or even death.	.39	.44
A mistreated senior tends to feel anger.	.41	.43
The majority of the aged are victims of physical or emotional mistreatment by children or relatives.	.37	.38
The principal cause of mistreatment in the elderly is the use of alcohol or drugs by the aggressor.	.37	.39
The relative that causes physical harm to a senior wants to control or punish him/her.	.43	.47
The abused elderly remains quiet due to feelings of fear, blame, or shame.	.38	.42
The abused elderly remains in the situation of abuse because of not having another place to live.	.37	.43
The abused elderly remains in the situation because of the love for the children or relatives.	.37	.41
Many mistreated elderly don't report it because known people are involved.	.38	.44
The number of elderly alone or abandoned is alarming.	.40	.46
Many mistreated elderly don't report it because they are afraid of remaining by themselves or of no longer having someone to care for them.	.44	.50
A lot of indifference towards the aged exists by children and relatives.	.40	.45
There is a law that makes obligatory that children help their parents economically if the need exists.	.35	.36
Many children leave their parents without a home upon selling their property without their permission.	.39	.41
Many elderly persons feel deceived by their children/relatives/neighbors.	.37	.41
Not allowing the aged to use the clothes they like is mistreatment.	.33	.34
Not allowing the aged the privacy to their mail is a form of mistreatment.	.33	.35
Promotional material announcing substances with the power to cure is a type of abuse.	.33	.37
Neglect of the aged is not visiting at least one day per week.	.40	.44
Neglect of the aged is not calling on the phone various times per week.	.42	.48
Physical abuse is the presence of bruises and hematomas.	.31	.32
Physical abuse is the presence of ulcers in the thighs and legs.	.35	.36
Physical abuse is the presence of sprains and dislocations.	.34	.35
Physical abuse is the inadequate arrangement of the environment surrounding the aged.	.30	.33
Psychological abuse is not including the aged in family conversations.	.39	.42

Table 2. Selected statements, indexes of discrimination and initial factor weight for exposure of the elderly towards abuse, mistreatment and neglect of the aged (N=430).

Exposure Statements	Discrimination Index	Initial Factor Load
Wait a long time for a ride from children/relatives to run errands but they never arrive.	.35	.34
Being screamed at for not understanding something.	.50	.49
Having to wait alone in an unfamiliar medical office.	.41	.36
Being screamed at for expressing opinion.	.51	.53
Being screamed at for questioning something.	.54	.56
Being submitted to medical interventions without the emotional support of relatives waiting.	.48	.48
Being prescribed a new medication without a complete explanation of the reason or its secondary effects.	.47	.47
Having to rush in the store because a companion children/relatives are rushing.	.45	.41
Doctor or other health professional feeling upset because of not understanding instructions.	.49	.48
Being hit by children/relatives because of not wanting to give away money.	.58	.67
Being threatened with living in a nursing home.	.56	.66
Being threatened with abandonment by children/relatives.	.64	.74
Personal things are borrowed without permission.	.56	.61
Not being helped with household chores unable to carry out alone.	.38	.40
Being made to sign a document without any explanation of the details.	.54	.57
Theft of money or social security check by children/relatives.	.53	.63
Purchase merchandise or a service by telephone that never arrives.	.41	.45
Being treated like a child.	.45	.46
Being left alone for long periods of time.	.54	.55
Suffer abuse do to fraudulent advertisement.	.54	.57
Being overcharged for articles in the stores.	.38	.43
Misuse of property without consent such as selling or renting home.	.58	.67
Personal things being thrown away without permission.	.51	.54

Discussion

The validity of the instrument has been preliminarily documented. Thus, this pilot study makes a contribution in terms of measurement of elderly abuse. The importance of being able to count with a validated and reliable instrument written in Spanish is noted in light of the increasing number of elderly being exposed to situations of abuse, mistreatment, and neglect. Also, it has very important implications in the development of public policy and the intervention initiatives with this population. Lastly, it contributes to the knowledge base in the field of social gerontology and related disciplines while it provides an instrument written in Spanish with documented validity and reliability for use in the aged population of Puerto Rico.

No study, however, is without limitations and this one is not an exception. The following are the limitations found in this investigation.

1. The sample was based on availability and thus is not representative of the population.
2. The size of the sample was adequate for a validation study, but a larger size population is necessary.

The scale of yes, no, and neutral was used, but it is understood that some type of Likert Scale would be more appropriate.

Recommendations

In spite of these limitations, the following recommendations are presented:

1. To review the questions that did not comply with the indexes of discrimination and factors of initial charge, and submit them to a new psychometric analysis.
2. To carry out studies with larger populations as well as representative samples.
3. To carry out the study using a Likert Scale and compare it with the results obtained here.

Resumen

Desarrollar y validar un instrumento en español para medir la opinión, actitud y exposición del envejecido puertorriqueño al abuso, maltrato y negligencia. Se desarrolló un cuestionario de 107 preguntas basado en ejemplos provistos por el Centro Nacional de Abuso de Ancianos de los Estados Unidos. Las entrevistas se llevaron a cabo entre los meses de agosto y diciembre del año 2004 a 430 envejecidos residiendo en comunidad. La muestra fue una por disponibilidad. Se llevó a cabo un análisis de reactivos usando la correlación ítem total como índice de discriminación. Se estimó la confiabilidad de consistencia interna utilizando la técnica de alfa de

Cronbach. También se realizó un análisis de factores utilizando la estimación de máxima verosimilitud (Maximum Likelihood). Esta técnica permite una medición más precisa de instrumentos que pretende medir rasgos latentes. La forma final del instrumento quedó construída por 57 ítem, de éstos 34 se relacionan a actitud del envejeciente y 23 ítem son sobre exposición de éste al abuso, maltrato y negligencia.

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