

# Most prevalent type of elder abuse and its correlation with elder depression

Tipo mais prevalente de abuso aos idosos e sua correlação com depressão do idoso  
 Tipo más prevalente de abuso a los ancianos y su correlación con depresión del anciano

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## Keywords

Elder abuse; Elder depression; Invisible elder abuse; Elders' own perception

## Descritores

Abuso de idosos; Depressão do idoso; Abuso de idosos invisível; A própria percepção dos anciãos

## Descriptores

Maltrato a personas mayores; Depresión del anciano; Abuso de ancianos invisible La propia percepción de los ancianos

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## Abstract

**Objective:** The purpose of this study was to identify the most prevalent type of elder abuse in S. Korea. This study also examined which type of elder abuse most affected elder depression and then discussed social countermeasures toward the prevalent types of elder abuse. **Methods:** This was a descriptive study and the data were collected via a convenience sampling method. Seventy-seven study participants were 60 years old or above and did not have mental disabilities or depression disorder. Five different types of elder abuse (verbal, emotional, physical, financial, and neglect) were measured along with their depressive symptoms. Descriptive statistics were used to determine the most prevalent type of elder abuse in S. Korea. Also, bivariate correlation and multiple regression were utilized to understand the relationship between types of elder abuse and elder depression. **Results:** Among the five types of elder abuse, verbal, emotional, and neglect abuse were more prevalent than physical and financial abuse. According to the bivariate analysis, emotional abuse and verbal abuse were significantly related with elder depression. **Conclusion:** Invisible types of elder abuse such as emotional, verbal, and neglect abuse were more prevalent than visible types such as financial and physical abuse. These abuse types were also significantly correlated with elder depression. This study warrants future interventional studies to improve elders' perception of elder abuse and thus prevent the development of elder depression.

## Resumo

**Objetivo:** O objetivo deste estudo foi identificar o tipo mais prevalente de abuso aos idosos na Coreia do Sul. Este estudo também analisou que tipo de abuso aos idosos mais afetou a depressão e depois discutiu contramedidas sociais em relação aos tipos prevalentes de abuso aos idosos. **Métodos:** Trata-se de um estudo descritivo e os dados foram coletados por meio de amostragem por conveniência. Setenta e sete participantes tinham 60 anos ou mais e não tinham deficiência mental ou transtorno depressivo. Cinco tipos diferentes de abuso aos idosos (verbal, emocional, físico, financeiro e negligência) foram medidos, bem como sintomas depressivos. Foi utilizada estatística descritiva para determinar o tipo mais prevalente de abuso aos idosos na Coreia do Sul. Além disso, utilizaram-se testes de correlação bivariada e regressão múltipla para entender a relação entre os tipos de abuso aos idosos e depressão do idoso. **Resultados:** Entre os cinco tipos de abuso aos idosos, o abuso verbal, emocional e negligência foram mais prevalentes do que os abusos físicos e financeiros. De acordo com a análise bivariada, o abuso emocional e o abuso verbal foram significativamente relacionados à depressão do idoso. **Conclusão:** Os tipos invisíveis de abuso aos idosos, como abuso emocional, verbal e negligência, foram mais prevalentes do que os tipos visíveis, como abuso físico e financeiro. Esses tipos de abuso também foram significativamente correlacionados com a depressão do idoso. Este estudo permite futuros estudos intervencionais para melhorar a percepção dos idosos sobre o abuso e, assim, prevenir o desenvolvimento da depressão dos idosos.

## Resumen

**Objetivo:** El objetivo de este estudio fue identificar el tipo más prevalente de abuso a los ancianos en Corea del Sur. Este estudio también analizó qué tipo de abuso a los ancianos más afectó la depresión y después discutió contramedidas sociales con relación a los tipos prevalentes de abuso a los ancianos. **Métodos:** Se trata de un estudio descriptivo y los datos fueron recolectados a través de muestreo por conveniencia. Setenta y siete participantes tenían 60 años o más y no tenían deficiencia mental o trastorno depresivo. Cinco tipos diferentes de abuso a los ancianos (verbal, emocional, físico, financiero y negligencia) se midieron, así como síntomas depresivos. Se utilizó la estadística descriptiva para determinar el tipo más prevalente de abuso a los ancianos en Corea del Sur. Además, se utilizaron pruebas de correlación bivariada y regresión múltiple para entender la relación entre los tipos de abuso a los ancianos y la depresión del anciano. **Resultados:** Entre los cinco tipos de abuso a los ancianos, el abuso verbal, emocional y la negligencia fueron más prevalentes que los abusos físicos y financieros. De acuerdo con el análisis bivariado, el abuso emocional y el abuso verbal fueron significativamente relacionados con la depresión del anciano. **Conclusión:** Los tipos invisibles de abuso a los ancianos, como abuso emocional, verbal y negligencia, fueron más prevalentes que los tipos visibles, como abuso físico y financiero. Estos tipos de abuso también se correlacionaron significativamente con la depresión del anciano. Este estudio permite futuros estudios intervencionistas para mejorar la percepción de los ancianos sobre el abuso y así evitar el desarrollo de la depresión de los ancianos.

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## Introduction

The worldwide elderly population has been increasing rapidly and the population of elderly people over 60 is expected to rise by up to 24% by 2050. (1) Understandably, some medical and social issues for the elderly have increased along with the population. (2) Among the issues, elder mistreatment and depression have frequently been studied: the results indicate that gender, age, level of education, presence of a spouse, and residential type are sociodemographic correlates to elder abuse and depression. (1,3-7) Specifically, elder depression has been often discussed internationally as a leading correlate to elder abuse. (5,8,9) In addition, the current state of knowledge in nursing science suggests that about 10% of the elderly population are victims of elder abuse annually. (3,10,11)

Much attention has been given to depression among the elderly in terms of their health status and their quality of life. Depression can contribute to many physical problems in the aged population and can limit their daily activities. (12) In addition, elderly with depressive symptoms may attempt suicide. (7) Some previous studies examined elderly depression due to abuse and some reported it as a moderator between elder abuse and suicidal thoughts. (7,13) In this study, however, various types of elder abuse were examined to determine which specific type of abuse most affects elder depression.

To my knowledge, no study has been conducted to compare elder abuse by type in South Korea, although there are a few international studies related to types of elder abuse. (10,14,15) However, one was a study constructing a measurement tool, (10) and the other two were studies on types of prevalent elder abuse in western countries. (14,15) Hence, the current study fills a gap in our knowledge. Given the findings from the literature review, the purpose of this study was threefold: first, to identify the most prevalent type of elder abuse in this country; second, to examine which type of elder abuse most affects elder depression; and third, to discuss social countermeasures for the types of prevalent elder abuse.

## Methods

This was a descriptive study in which data were collected via a convenience sampling method. Study participants were recruited from various venues, such as senior community centers, subway stations, seniors' parks, and/or traditional market places, in a province located in the southern part of S. Korea. Sample size was justified using G\*Power Analysis version 3.1.9.2 and a priori analysis: input determinants were medium effect size (.20),  $p = 0.05$  significance level, and study power of 0.80. The analysis indicated that a sample size of 71 subjects was needed. 135 survey questionnaire packages were distributed to account for the attrition rate and the survey proceeded for a month. Seventy-seven subjects agreed to participate and answered the questionnaire. This sample size met the sample size justification. The inclusion criteria were elders who were 60 or older and who agreed to be in the study after receiving detailed study information. The study participants also had to be able to understand the study requirements and have no limitations in cognitive ability. The exclusion criteria were cognitive disabilities such as dementia and psychological diagnoses such as depression as diagnosed by Diagnostic and Statistical Manual of Mental Disorders (DSM)-V (2013, May). This study was approved by the Institutional Review Board (IRB) of the institution where the author serves as an assistant professor (IRB approval number: 1040621-201809-HR-028-02). Before the survey began, all participants were informed that they had the right not to participate to this study or the right to withdraw in the middle of the survey process. Confidentiality was also emphasized due to the sensitivity of the study topic. Once the data were collected, all identifications were removed and there was no way to retrieve the study participants.

The conceptual definition of elder abuse was 'a physical, emotional, verbal, and financial mistreatment done by family members or close relatives toward elderly population above 60 years old.' (16) The operational definition of elder abuse in the measure used in this study includes five types of elder abuse: verbal, emotional, physical, financial, and neglect

abuse. There were a total of 18 items for the entire measure. However, the five sub-concepts of elder abuse were measured by 3 items, 4 items, 4 items, 4 items, and 3 items, respectively, for verbal, emotional, physical, financial, and neglect abuse. The items were scored on a 5-point Likert Scale ranging from 1 point=not at all to 5 points=strongly agree; therefore, total scores ranged from 18 to 90, with higher scores indicating more elder abuse. In this measure, one point indicates that the respondent has never been mistreated and 2 points or more indicates that they have been mistreated at least once. Kim (2007)<sup>(17)</sup> used this tool to measure elder abuse and reported that the Cronbach's alpha of internal consistency was 0.897; the current study reported 0.868 for internal consistency.

Geriatric Depression Scale (GDS, 1983)<sup>(18)</sup> is one of the measures used worldwide to specifically measure depressive symptoms in the elderly population. The original GDS included 30 items but a short-version was later developed that included 15 items.<sup>(19)</sup> This study used the short version. This scale is typically easy to administer in the aged population since it requires yes/no answers. The conceptual definition of depression in this scale was 'whether or not existence of worries and one's perception toward their quality of life.' The answer 'yes' was coded as 0 point while 'no' was coded as 1 point. There were five reverse items and coding was flipped for these reverse items. In terms of operational definition, the total score ranged from 0 to 15 points, with lower scores representing less depression and higher scores, more depression. The short form suggests that 0-4 points is normal, 5-10 points is intermediate depression, and 11 points and above is severe depression. In addition,

the original study<sup>(19)</sup> reported Cronbach's alpha of internal consistency = 0.840. This study reported internal consistency of 0.774.

The data were coded, cleaned, and analyzed using SPSS version 25.0.<sup>(20)</sup> Descriptive statistics such as frequencies, mean, median, standard deviation, ranges, and dispersion were used to determine the most prevalent type of elder abuse in S. Korea. Bivariate correlation and multiple regressions were used to analyze the relationship between types of elder abuse and elder depression. Since the sample size justification was calculated using an appropriate statistical package and the study sample size satisfies that, parametric tests were implemented. To define the degree of significance, an alpha level of 0.05 was used.

## Results

The mean age of the study participants was 74.5 years and 73% were female. One-third of them (32.5%) were living alone, 40.3% were living with their spouse, and 23.4% were living with their married/unmarried child/children. Two-thirds (70.1%) were relatively healthy but the rest (29.9%) answered that they were unhealthy. Nine subjects (11.7%) reported that they had been abused. The majority (70.1%) of the abused did not have independent monthly incomes and were therefore dependent on their children and/or relatives (Table 1). These demographic characteristics explain 32.2% of the relationship with elder depression (F-value=6.759,  $p$ -value<0.001) while they explain 6.1% of the relationship with elder abuse (F-value=0.929,  $p$ -value=0.467) (Table 1).

**Table 1.** Demographic characteristics and model summary

	Age		Gender			Abuse experience		Living with			
	Mean (SD)		Female	Male		Yes	No	Alone	Spouse	Children	Etc.
	74.35 (0.762)		56(72.7%)	21(27.3%)		9(11.7%)	68(88.3%)	25(32.5%)	31(40.3%)	18(23.4%)	3(3.8%)
	Health status					Independent Income					
	Excellent	Good	Moderate	Bad	Very bad	Yes	No				
	4(5.2%)	20(26%)	30(39%)	21(27.3%)	2(2.6%)	23(29.9%)		54(70.1%)			
Model summary					R	R <sup>2</sup>	F variance	Sig. F variance			
Dependent variables			Depression		0.568	0.322	6.759	0.000			
			Abuse		0.248	0.061	0.929	0.467			
Predictor							Demographic Variables				

### The prevalent types of elder abuse in Korea

The potential total abuse score ranged from 18 to 90. In our sample, the total score ranged from 22 to 59 points and the mean score was 34.17 [Standard Deviation (SD): 8.95]. Each question is scored from 1 to 5 points: 1 point indicates that the subject had never been abused while 5 point indicates that the subject strongly felt that they were abused all the time. Hence, if a subject had never been abused, the total abuse score should not be over 18. If the score was above 18, the subject had been mistreated somehow and she/he scored some item(s) greater than 1 point (Table 2).

The measure included five subscales for verbal, emotional, physical, financial, and neglect abuse. Among the five types of elder abuse, verbal (mean 7.34 out of maximum score of 15), emotional (mean 8.88 out of maximum score of 20), and neglect abuse (mean 6.31 out of maximum score of 15) were relatively more prevalent than physical (mean 6.19 out of maximum score of 20) and financial abuse (mean 5.44 out of maximum score of 20) (Table 2). In summary, invisible types of elder abuse were more prevalent than visible types.

Looking at the scale, item by item, the mean score for items 1 through 5 and 16 through 17 was greater than 2.0 (from time to time abused/mistreated): 2.84, 2.47, 2.03, 2.64, 2.44, 2.34, and

2.05, respectively. Items 1 through 3 belong to the subscale of verbal abuse and 4 through 8 belong to the subscale of emotional abuse. Items 16 through 18 belong to the subscale of neglect abuse (Table 2). This result also indicated that invisible types of elder abuse are more prevalent in South Korea.

### Correlation between elder depression and type of elder abuse

Elder depression was correlated with elder abuse. From bivariate analysis, specifically emotional abuse (Pearson's correlation coefficient= .305, *p*-value=0.007) and verbal abuse (Pearson's correlation coefficient= .340, *p*-value=0.002) were significantly related with elder depression. To confirm these results, multiple regression analysis was implemented to control other variables: the five types of elder abuse explained about 15.3% of elder depression (*p*-value=0.034, *F* value=2.565). The Pearson's correlation coefficient values for the two independent variables (verbal and emotional abuse) were calculated and similar correlations were shown: significance between elder depression and verbal abuse was *p*=0.001 while that of emotional abuse was *p*=0.004 (Table 3). In other words, elder depression is mostly influenced by verbal and emotional elder abuse rather than by physical, financial, and neglect elder abuse.

**Table 2.** Types of elder abuse and its means by item

Types of Abuse	Total abuse		Verbal		Emotional		Physical		Economical		Neglect							
Mean(SD)	34.17(8.95)		7.34(2.13)		8.88(3.06)		6.19(2.52)		5.44(2.25)		6.31(2.68)							
Minimum	22.00		3.00		4.00		4.00		4.00		3.00							
Maximum	59.00		12.00		18.00		15.00		12.00		12.00							
Abuse	Mean for item by item																	
Item number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Mean	2.84	2.47	2.03	2.64	2.44	1.90	1.91	1.74	1.36	1.51	1.58	1.34	1.29	1.45	1.36	2.34	2.05	1.92
SD	0.93	0.97	0.97	1.08	0.95	0.87	0.98	0.91	0.69	0.84	0.85	0.64	0.54	0.82	0.74	1.11	0.99	1.05

**Table 3.** Correlation between elder depression and type of elder abuse

Types	Verbal Abuse	Emotional Abuse	Physical Abuse	Economic Abuse	Neglect Abuse	Verbal Abuse		
Elder Depression	Pearson correlation	0.340	0.305	0.181	0.053	0.088		
	Significance	0.002	0.007	0.115	0.650	0.448		
	Sum of squares	194.75	251.66	122.90	31.83	63.23		
	covariance	2.56	3.31	1.62	0.42	0.83		
Model summary	R		R <sup>2</sup>		F variance		Significance of F variance	
	0.391 <sup>a</sup>		0.153		2.565		0.034	

Predictors: Neglect Abuse, Verbal Abuse, Economic Abuse, Physical Abuse, Emotional Abuse; Dependent variable: Depression

## Discussion

Previous studies have been conducted to find correlations between demographic characteristics and elder abuse and those studies commonly reported that females and those with a level of illness requiring assistance for daily activities are more prone to experience elder abuse.<sup>(4,6,8,11,14)</sup> In contrast, the current study reported the demographic characteristics related to elder (geriatric) depression rather than elder abuse. In the current study, more demographic variables, such as details related to degree of illness and level of education, could be collected and tested to see correlations with elder abuse, assuming the sample size was sufficient to include that many study variables in the analysis. In future research, those varied demographic variables can be retested in a bigger sample with randomized sampling method.

Based on the results, obscure types of elder abuses are more prevalent than definite types in S. Korea. Previous evidence also reported that psychological types of elder abuse were more prevalent than physical types.<sup>(14,15)</sup> However, Simone et al.<sup>(15)</sup> reported that neglect abuse was the most prevalent abuse and Ribot et al.<sup>(14)</sup> reported that psychological abuse was the leading type of abuse. It is difficult to compare the concepts exactly since previous studies used different measures of different study variables to explore elder abuse. But, the current study and previous studies have something in common: Verbal abuse and emotional abuse in the current study were invisible/indefinite to grasp as were psychological abuse<sup>(14)</sup> and neglect abuse.<sup>(15)</sup>

Current elder abuse screening has been developed to detect more proof of abuse.<sup>(21)</sup> For example, questions on the tool ask for a specific event when the victim was mistreated or evidence left on their body due to the mistreatment. For instance, “has anyone prevented you from getting food, medication, glasses....” (Wang et al., P.578). Therefore, invisible and/or indefinite types of elder abuse such as verbal harassment and emotional suffering are covered by the screening process. The current study, however, informed us that elder victims suffered more from obscure types of abuse than visible types of abuse. This warrants future research and the de-

velopment of an elder-abuse-screening tool that accurately reflects reality. In addition, a social welfare system should be constructed so that these victims can report whenever they suffer from abuse. In Korea, there is a social norm that familial problems are supposed to be covered up so that the family is well thought of. Due to this traditional norm, elders are more prone to hide mistreatment and, thus, baring the whole picture on the status of elder abuse is quite unrealistic. In light of this, a well-developed social welfare system should enable and encourage elderly victims in the future to freely report abuse they have endured.

On the one hand, this study found that the psychological and invisible types of elder abuse (verbal and emotional abuse) more negatively affect elder depression than visible types of elder abuse (physical and financial abuse). Because of the explosive extension of life expectancy, attention has been given to the quality of the elderly life and depression is one of the frequently studied issues.<sup>(13,22)</sup> Previous evidence suggests that elder abuse causes elder depression, thus decreasing their quality of life or provoking suicidal thoughts. Clearly then, in this respect, a social security system that protects victims who have specifically suffered from verbal and emotional abuse should be established promptly. This will prevent victims from getting geriatric depression and protect them from living with a low quality of life.

In the current study, only nine out of 77 participants agreed that they have been abused. If these answers were true, then the total score of abuse in the elder abuse scale for the rest (68 participants) should be 18 points. However, all 77 participants reported an abuse score of greater than 22 points, which meant that they have somehow been mistreated. A recent study reported that elders are sensitive in their perception of their own experience of abuse,<sup>(23)</sup> but the current study suggests the opposite result. This phenomenon is probably related to the cultural climate in Korea: the elderly in Korea live without an appropriate perception of how they are treated. In other words, attention should be given to all subjects in this study beyond the reported 9 individuals. In the future, an interventional study is warranted to improve their perception of experiencing elder abuse.

## Conclusion

This study was conducted to find the most prevalent types of elder abuse in Korea and to identify correlations between elder abuse and elder depression. In addition, thoughtful discussions should begin regarding social interventions for various types of elder abuse and the correlating elder depression. This study fills gaps in our knowledge since no study has been conducted to compare elder abuse by type in South Korea, although a few studies have been performed in Western countries. Still, this study has certain limitations such as sampling bias (purposeful and convenience sampling not collected nationwide, and a relatively small sample size) but the innovativeness of this study to fill a knowledge gap far outweighs the study limitation. Future research should involve a study conducted on a broader, nationwide, random sample and the development of a social welfare system that enables elderly victims to freely report their experiences. Also, an interventional study is warranted to improve elders' perception of their own experience of mistreatment.

## References

1. Yan E, Chan KL, Tiwari A. A systematic review of prevalence and risk factors for elder abuse in Asia. *Trauma Violence Abuse*. 2015;16(2):199–219.
2. Sanchez YM. Distinguishing cultural expectations in assessment of financial exploitation. *J Elder Abuse Negl*. 1997;8(2):49–59.
3. Acierno R, Hernandez MA, Amstadter AB, Resnick HS, Steve K, Muzzy W, et al. Prevalence and correlates of emotional, physical, sexual, and financial abuse and potential neglect in the United States: the National Elder Mistreatment Study. *Am J Public Health*. 2010;100(2):292–7.
4. Castle N, Ferguson-Rome JC, Teresi JA. Elder abuse in residential long-term care: an update to the 2003 National Research Council report. *J Appl Gerontol*. 2015;34(4):407–43.
5. Lee KH, Kim YJ, Kang HJ. A study on determinants of elder abuse. *J Korean Fam Relat*. 2008;13(3):43–66.
6. Pillemer K, Burnes D, Riffin C, Lachs MS. Elder abuse: global situation, risk factors and prevention strategies. *Gerontologist*. 2016;56(2 Suppl 2):S194–205.
7. Seo IK, Lee YS. A mediation effect of depression between a elderly's abuse experience and considering suicide: A comparative study on people who live alone and those who live with family. *Welfare for Senior Citizens*. 2015;68:7–35.
8. DeLiema M, Gassoumis ZD, Homeier DC, Wilber KH. Determining prevalence and correlates of elder abuse using promotores: low-income immigrant Latinos report high rates of abuse and neglect. *J Am Geriatr Soc*. 2012;60(7):1333–9.
9. Santos AJ, Nunes B, Kislaya I, Gil AP, Ribeiro O. Exploring the correlates to depression in elder abuse victims: abusive experience or individual characteristics? *J Interpers Violence*. 2017 ;886260517732346.
10. Beach SR, Liu PJ, DeLiema M, Iris M, Howe MJ, Conrad KJ. Development of short-form measures to assess four types of elder mistreatment: findings from an evidence-based study of APS elder abuse substantiation decisions. *J Elder Abuse Negl*. 2017;29(4):229–53.
11. Lachs MS, Williams C, O'Brien S, Hurst L, Horwitz R. Risk factors for reported elder abuse and neglect: a nine-year observational cohort study. *Gerontologist*. 1997;37(4):469–74.
12. Barua A, Ghosh MK, Kar N, Basilio MA. Sociodemographic factors of geriatric depression. *Indian J Psychol Med*. 2010;32(2):87–92.
13. Jeon MS, Park CS. The Influence of Suicide Prevention Program on Elders' Depression, Self Esteem and Suicidal Ideation: Targeting elders in day-care [thesis]. South Korea: Daegu University; 2016.
14. Ribot VC, Rousseaux E, García TC, Arteaga E, Ramos M, Alfonso M. Psychological the most common elder abuse in a Havana neighborhood. *MEDICC Rev*. 2015;17(2):39–43.
15. Simone L, Wettstein A, Senn O, Rosemann T, Hasler S. Types of abuse and risk factors associated with elder abuse. *Swiss Med Wkly*. 2016;146:w14273.
16. Korea Institute for Health and Social Affairs. a report from 1999. [Internet]. South Chungcheong Province; KIHASA; 2016. [cited 2018 Oct 18]. Available from: <https://www.kihasa.re.kr/public/web/etc/bre.pdf>
17. Kim M. (2007). The effectiveness of elder abuse on their life satisfaction [ thesis]. Seoul: Seoul Jansin University; 2007.
18. Yesavage JA, Brink TL, Rose TL, Lum O, Huang V, Adey M, et al. Development and validation of a geriatric depression screening scale: a preliminary report. *J Psychiatr Res*. 1982-1983;17(1):37–49.
19. Sheikh JI, Yesavage JA. Geriatric Depression scale (GDS): Recent evidence and development of a shorter version. *Clin Gerontol*. 1986;5(1-2):165-73.
20. IBM SPSS Statistics for Windows, Version 25.0. Released 2017. Armonk, NY: IBM Corp.; 2017.
21. Wang XM, Brisbin S, Loo T, Straus S. Elder abuse: an approach to identification, assessment and intervention. *CMAJ*. 2015;187(8):575–81.
22. Wang F, Meng LR, Zhang Q, Li L, Nogueira BO, Ng CH, et al. Elder abuse and its impact on quality of life in nursing homes in China. *Arch Gerontol Geriatr*. 2018;78:155–9.
23. Cadmus EO, Owoaje ET, Akinyemi OO. Older persons' views and experience of elder abuse in South Western Nigeria: a community-based qualitative survey. *J Aging Health*. 2015;27(4):711–29.