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Assessment Of the Functional Capacity of The Elderly of Barangay San Fabian, Echague, Isabela, Philippines

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Abstract: Normal aging process, acute illness, worsening chronic illness, and hospitalization can contribute to a decline in the ability of the older adults to perform task necessary to live independently. One of the best way to evaluate the health status of the elderly is through functional assessment which provides data that may indicate future decline allowing the nurse and their primary care giver to intervene appropriately. This study was conducted to assess the functional capacity of the elderly living at San Fabian, Echague, Isabela. The Descriptive-Inferential design was used. A total of 107 respondents with a mean age of 70.26, majority are female (52.3%), married (62.6%), and obtained college education 29.9% and 10.3% are graduate and undergraduate respectively. 43% receives pension. Respondents and significant others were interviewed using a 3-point Likert scale. On the level of functional capacity, researcher found out that the elderly are independent in performing BADL and need assistance in performing of IADL such as ability to use phone, shopping, performing heavy domestic works, laundry, taking medication in correct time and handling of finances. Age has a negative significant relationship with their ability to perform both the BADL and IADL and there is a difference between gender and source of income and their ability to perform IADL. The study also shows a significant relationship between the respondent's marital status and their education with their ability to do IADL.

Keyword: Functional capacity, Elderly, Assessment.

1. Introduction

World population projections for the 21st century show that the transition to aging society is occurring at a rapid pace both in developed and developing countries. Based on latest Census of Population and Housing, which was conducted on May 2010, the household population of the Philippines reached 92, 097,978. From this number, senior citizens made up 6.8 percent. (Ong, 2012).

Region II is one of the 8 regions who had proportion of senior citizens higher than the national figure with a percentage of 7.3, (Ong, 2012).

The secretary of New Echague Senior Citizen Association (NESCA) stated that San Fabian is one of the barangays in Echague, Isabela who has the highest number of senior citizens. The total number of senior citizen in San Fabian is 240 (San Fabian Census as of January 2014).

Aging does not happen overnight. It is a process that starts from the beginning of life. It is only in later life that changes happen due to aging becoming more apparent. These changes are manifeste in the skin texture, flexibility of joints, eyesight, etc (Natividad et al., 2005). With advancing age, the body tends to slow down and becomes less efficient making them prone to a few are related problems; this is a normal aspect of life and one cannot help it. However, through knowing the special needs or problems and giving proper care and assistance, one can definitely help in keeping those needs or problems manageable, thus, preventing them from causing any serious harm.

There are a number of aspects that are involved in taking care of the elderly or aged people. Having a good amount of awareness about various needs and requirements of the elders is extremely important for those people who have the responsibility of taking care of their aged family members, like their parents or relatives.

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The functional capacity: basic activity of daily living and instrumental activity of daily living, has been identified and recommended by the World Health Organization (WHO) as one of the main areas to be assessed in elderly people. Other domains are physical health, mental function, social, environmental, and economic awareness. Of all these areas, self-care capacity or generally called activities of daily living is probably the most important. Not only performance in this area is related to mental and physical health; it may also determine social well-being. Particular concern here is whether it is feasible to live independently, whether the provision of some type of service may continue community residence possible or whether incapacity is such that it is necessary to move to a specialized residential setting (Fillenbaum, 1984).

Functional assessment measures the older person's ability to perform self-care activities and assume social roles in order to determine the status of health and well-being of the older person. Due to aging effects and chronic illnesses, the physical, the psychological and social functions of older persons can be less optimal. It is also possible that certain activities of daily living (ADLs) are beyond the older person's ability to perform, which further puts his/her health at risk and contributes to a decreased quality of life. Assessment of the older person's level of function is used as basis for the plan of care. The objective of the care plan is either to improve or maintain the functional status of the older person. A functional assessment before intervention helps establish a baseline on which to gauge improvement (Natividad et al., 2005).

The activities of daily living (ADLs) are self-care activities that people must accomplish independently in order to survive. However, people with advanced age or the elderly has difficulty performing these tasks. Since we are in the province where there are no nursing homes built for the elderly, their own homes will be their nursing home and their family will be their primary care giver. Their primary care giver needs to know how much assistance the elderly need in performing self-care activities. Through assessing the functional capacity (activities of daily living), the primary care giver will be able to know on which activity the elderly have difficulty performing and its level of difficulty. Through this, the caregiver can decide what and how much assistance he or she should give to the elderly in performing these activities.

The elderly are still an important part of the community; their needs should be attended and given deeper understanding and highest priority. The elderly should not be considered as burden of the society, because they could still be useful in a simple ways.

2. Methodology

Descriptive – Inferential design was used on this study. The researcher used this design to describe the relationships among the variables.

This research study was conducted in Barangay San Fabian, Echague, Isabela. The said barangay is composed of seven (7) puroks.The respondents of the study were the elderly aged 60 and above and resident of Barangay San Fabian, Echague, Isabela.

To attain the objectives of this study, the researcher used the Katz Index of Independence in Activities of Daily Living and Lawton Instrumental Activities of Daily Living scale as a basis in preparing the survey questionnaire was divided into three (3) parts. Part 1 presents the demographic profile of the respondents such as age, sex, marital status, highest3 educational attainment and income (pensioner or non-pensioner). Part 2 and 3 were the questionnaire proper which comprises the Basic Activities of Daily Living (BADL) for part 2 and Instrumental Activities of Daily Living (IADL) for part 3 respectively. Part 2 and Part 3 questionnaire used a 3-Point Likert Scale to determine the level of functional capacity of the respondents. The 3-Point Likert Scale has range and descriptive equivalent as follows:

Table 1: Mean and Qualitative Description

Scale	Range	Descriptive Equivalent
3	2.5 – 3.0	Independent (performs completely without assistance) (for continence – controls completely/continent)
2	1.5 – 2.49	Assistance Required (another person assistance or through assistive devices) (for continence – partially incontinent)
1	1 – 1.49	Dependent (cannot do at all) (for continence – totally incontinent)

2.1. Data Collection Procedure

On this study, the researcher first wrote a letter addressed to the Barangay Captain of San Fabian, Echague, Isabela to ask permission to conduct the study among the elderly residing at the said barangay. Upon approval, the researcher got the recent census of the barangay from the Barangay Health Workers to determine the total population of the elderly. The researcher explained the informed consent to the respondent or primary care giver and let them sign it voluntarily. The researcher gathered data through face to face interview of the respondents and/or of the primary care giver or significant other who was living with the elderly.

2.2. Statistical Treatment of Data

The researcher analyzed and treated the data through the use of Statistical Package for Social Sciences (SPSS). In determining the profile of the respondents and their level of functional capacity, the researcher used frequency, percentage and weighted mean. Kendall's Tau-c, T-test and chi square were used to determine the relationship and difference between the variables.

3. Results And Discussion

3.1. Profile of the respondents

The profile of the respondents in terms of age, gender, marital status, highest educational attainment and source of income are presented.

Table 2: Frequency and Percentage of the Profile of the Respondents

Profile of the Respondents	Frequency	Percentage
Age		
60 – 69	53	49.5
70 – 79	38	35.5
80 – 89	16	15.0
Gender		
Female	56	52.3
Male	51	47.7
Marital Status		
Single	4	3.7
Married	67	62.6
Widowed	36	33.6
Highest Educational Attainment		
Elementary Undergraduate	11	10.3
Elementary Graduate	10	9.3
High School Undergraduate	14	13.1
High School Graduate	23	21.5
College Undergraduate	11	10.3
College Graduate	32	29.9
2 years Vocational Course	5	4.7
Doctoral	1	0.9
Source of Income		
Pensioner	46	43.0
Non-pensioner	61	57.0

As presented in Table 2, the elderly has a mean age of 70.26, elderly aged 60 to 69 comprises the largest population of the respondents with a frequency count of 53 or 49.5%, followed by aged 70 to 79, with frequency count of 38 or 35.5%, and elderly ages 80 to 89 has the smallest number with a frequency count of 19 or 15.0%, for a total of 107.

In terms of gender, female respondents dominate the male. There are 56 females (52.3%) and 51 males (47.7%).

With regards to marital status, 67 out of 107 respondents or 62.6% were married, 36 or 33.6% were widowed and 4 or 3.7% were single.

As to educational attainment, respondents who were college graduate have the highest number with a frequency of 32 or 29.9%, followed by high school graduate with a frequency count of 23 or 21.5%, then high school undergraduate which have a frequency count of 14 or 13.1%. Elementary and college level or

undergraduate have the same frequency count of 11 or 10.3%, elementary graduate has 10 or 9.3%, 5 (4.7%) respondents finished two years vocational course, 1 (0.9%) has a doctoral degree.

As to income, non-pensioner respondents have the highest number with a frequency count of 61 or 57.0%, while respondents who receive pension have a frequency of 46 or 43.0%.

3.2. Level of Functional Capacity

The level of functional capacity of the respondents in terms of Basic Activities of Daily Living (BADL) and Instrumental Activities of Daily Living (IADL) were presented.

Table 3: Mean and Descriptive Equivalent of Basic Activities of Daily Living (BADL)

Activities	Mean	Descriptive Equivalent
A. Bathing (either sponge bath, tub bath or shower)		
1. Gets in and out of tub/bathroom	2.07	Independent
2. Bath self completely	2.88	Independent
3. Bathes a single part of the body (back, genital, disabled extremity)	2.92	Independent
4. Dries self completely	2.91	Independent
B. Dressing		
1. Gets clothes from closets and drawers	2.84	Independent
2. Puts on undergarments	2.92	Independent
3. Dresses upper part of the body	2.91	Independent
4. Dresses lower part of the body	2.91	Independent
5. Manages fasteners/belts/suspender	2.88	Independent
C. Toileting		
1. Goes to toilet room	2.88	Independent
2. Gets on and off from the toilet bowl/commode	2.96	Independent
3. Takes off clothes and arranges it	2.97	Independent
4. Cleans anogenital area	2.97	Independent
5. Manages own bedpan or commode use at night only	2.76	Independent
D. Transfer		
1. Moves in and out of bed	2.86	Independent
2. Moves in and out of chair	2.88	Independent
E. Continence		
1. Control urination	2.88	Independent
2. Control defecation	2.89	Independent
F. Feeding		
1. Gets food from plate into the mouth	3.00	Independent
2. Drinks from a glass/cup	3.00	Independent

As shown in the table, the respondents were independent or can perform without any assistance the basic self-care activities such as bathing, dressing, toileting, transferring and feeding. It was also presented that they were continent or can control their urination and defecation completely.

Table 4: Mean and Descriptive Equivalent of Instrumental Activities of Daily Living (IADL)

Activities	Mean	Descriptive Equivalent
A. Ability to use phone		
1. Operates phone on own initiative	1.64	Assistance Required
2. Looks up and dial numbers	1.66	Assistance Required
3. Answers phone calls	1.89	Assistance Required
4. Sends text messages	1.61	Assistance Required

B. Shopping		
1. Goes to market/shopping mall	2.49	Assistance Required
2. Shops for small purchases	2.62	Independent
3. Shops for big purchases	2.36	Assistance Required
C. Food Preparation		
1. Plans meals	2.68	Independent
2. Prepares meals to be cooked (washing, cutting, etc.)	2.56	Independent
3. Cooks meals	2.56	Independent
4. Serves meals	2.60	Independent
D. Housekeeping		
1. Performs heavy domestic work such as fetching of water	2.36	Assistance Required
2. Performs light daily tasks such as dish washing and bed making	2.68	Independent
1. Launders big/large items	2.22	Assistance Required
2. Launders small items	2.53	Independent
F. Mode of Transportation		
1. Travels on public transportation or drives own car	2.57	Independent
2. Climb in and off from a vehicle	2.58	Independent
G. Responsibility for own medication		
1. Prepares own medication	2.65	Independent
2. Takes medication in correct dosage	2.66	Independent
3. Takes medication in correct time	2.47	Assistance Required
H. Ability to handle finances		
1. Budgets	2.47	Assistance Required
2. Pays rent and bills	2.44	Assistance Required
3. Goes to bank	2.35	Assistance Required
4. Manages day-to-day purchases	2.39	Assistance Required

As presented in the table above, they require assistance in using phone. In shopping, they need assistance in going to market or shopping mall and in shopping for big purchases, while they are independent in shopping for small purchases.

It also presents that the elderly are very much independent in food preparation. On the other hand, performing heavy works and laundering big items requires them assistance whether by a person or mechanical aid, while performing light daily task and laundering small items do not require them any assistance.

It is shown in the table also that they are independent in travelling either through public transportation or driving their own car; they can also climb on and off the vehicle without assistance.

In activities under responsibility of own medication, they do not need assistance in preparing and taking their medicines in correct dosage, but they require assistance in taking it in correct time. The table also shows that they need assistance in handling or managing finances.

As stated in study "*Functional Capacity and Associate Factors in the Elderly"* by Freitas et al (2012), there is a higher prevalence of dependence in Instrumental Activities of Daily Living (IADL), because these activities require greater physical and cognitive integrity compared with Basic Activities of Daily Living (BADL). Furthermore, activities such as using phone, managing money and medication are tasks that requires multiple cognitive functions such as memory and planning, making them vulnerable to these activities.

3.3. Relationship And Difference Between Basic Activity of Daily Living and The Profile of The Respondents

The relationship between basic activities of daily living with the age, gender, marital status, highest educational attainment and source of income of the respondents are presented.

Table 5. Relationship of Age and Basic Activities of Daily Living

Activities	τ_c	P
A. Bathing (either sponge bath, tub bath or shower)		
1. Gets in and out of tub/bathroom	-.0201*	0.006
2. Bath self completely	-0.175*	0.001

3. Bathes a single part of the body (back, genital, disabled extremity)	-0.177*	0.009
4. Dries self completely	-0207*	0.004
B. Dressing		
1. Gets clothes from closets and drawers	-0.202*	0.001
2. Puts on undergarments	-0.177*	0.009
3. Dresses upper part of the body	-0.207*	0.004
4. Dresses lower part of the body	-0.207*	0.004
5. Manages fasteners/belts/suspender	-0259*	0.001
C. Toileting		
1. Goes to toilet room	-0.273*	0.001
2. Gets on and off from the toilet bowl/commode	-0.043^{NS}	0.148
3. Takes off clothes and arranges it	-0.008 ^{NS}	0.754
4. Cleans anogenital area	-0.008 ^{NS}	0.754
5. Manages own bedpan or commode use at night only	-0.244*	0.000
D. Transfer		
1. Moves in and out of bed	-0.298*	0.000
2. Moves in and out of chair	-0.268*	0.001
E. Continence		
1. Control urination	-0.268*	0.001
2. Control defecation	-0.309*	0.000
F. Feeding		
1. Gets food from plate into the mouth	No test due to constant value	
2. Drinks from a glass/cup		

Legend: * - significant NS – no significance

Table 5 shows that most of the Basic Activities of Daily Living have negative significant relationship with the age of the respondents except for activities under toileting such as gets on and off from the toilet bowl or commode (Tau-c value of 0.043), takes off clothes and arranges it (τ_c-0.008), cleans anogenital area (τ_c – 0.008) which shows no relationship with the age of the respondents.

For feeding, no statistics was computed because the entire respondents (107) yielded to the same answer of Independents (3) or the variables getting food from plat into the mouth and drinking from glass/cup is constant.

This implies that as the age increases the ability to perform basic activities of daily living decreases or they become dependent.

Calenti et al (2009) stated in their study that advances age can be the most important risk factor for deterioration of the functional state of the elderly.

Table 5: Difference between Gender and Basic Activities of Daily Living

Activities	Male	Female	T-value	P
A. Bathing (either sponge bath, tub bath or shower)				
1. Gets in and out of tub/bathroom	2.9020	2.107	-0.154^{NS}	0.878
2. Bath self completely	2.8627	2.8929	-0.405 ^{NS}	0.687
3. Bathes a single part of the body (back, genital, disabled extremity)	2.9020	2.9286	-0.488 ^{NS}	0.627
4. Dries self completely	2.9020	2.9107	-0.154 ^{NS}	0.878
B. Dressing				
1. Gets clothes from closets and drawers	2.8039	2.750	-0.758 ^{NS}	0.450
2. Puts on undergarments	2.9020	2.9286	-0.488 ^{NS}	0.627
3. Dresses upper part of the body	2.8824	2.9286	-0.807 ^{NS}	0.422
4. Dresses lower part of the body	2.8824	2.9286	-0.807 ^{NS}	0.422
5. Manages fasteners/belts/suspender	2.8627	2.8929	-0.470 ^{NS}	0.639
C. Toileting				
1. Goes to toilet room	2.8824	2.9107	-0.476 ^{NS}	0.635
2. Gets on and off from the toilet bowl/commode	2.9608	2.9464	0.298 ^{NS}	0.767
3. Takes off clothes and arranges it	2.9412	3.0000	-1.768 ^{NS}	0.083
4. Cleans anogenital area	2.9412	3.0000	-1.768 ^{NS}	0.083
5. Manages own bedpan or commode use at night only	2.7255	2.8214	-0.816 ^{NS}	0.416
D. Transfer				
1. Moves in and out of bed	2.8431	2.8750	-0.468 ^{NS}	0.641
2. Moves in and out of chair	2.8431	2.107	-1.052 ^{NS}	0.295
E. Continence				

1. 1.Control urination	2.8627	2.8929	-0.470 NS	0.639
2. Control defecation	2.8824	2.8929	-0.170 NS	0.865
F. Feeding				
1. Gets food from plate into the mouth	3.0000	3.0000	No test due to constant	
2. Drinks from a glass/cup	3.0000	3.0000	value	

Legend: * - significant NS – no significance

As presented in the table above the probability values were gather than 0.05 which means that there is no significant difference between the gender of the respondents and their ability to perform Basic Activities of Daily Living. Therefore, the null hypothesis is accepted. This implies that the respondents can do the activities regardless of their gender.

For feeding, no statistics was computed because the entire respondents (107) yielded to the same answer of Independent (3) or the variables getting food from plate into the mouth and drinking from glass/cup is constant.

Table 6: Association of Marital Status and Basic Activities of Daily Living

Activities	X_2	P
A. Bathing (either sponge bath, tub bath or shower)		
1. Gets in and out of tub/bathroom	0.552 NS	0.759
2. Bath self completely	1.964 NS	0.742
3. Bathes a single part of the body (back, genital, disabled extremity)	0.393 NS	0.821
4. Dries self completely	0.557 NS	0.757
B. Dressing		
1. Gets clothes from closets and drawers	1.237 NS	0.872
2. Puts on undergarments	0.393 NS	0.821
3. Dresses upper part of the body	0.552 NS	0.759
4. Dresses lower part of the body	0.552 NS	0.759
5. Manages fasteners/belts/suspender	0.693 NS	0.707
C. Toileting		
1. Goes to toilet room	2.627 NS	0.269
2. Gets on and off from the toilet bowl/commode	3.587 NS	0.465
3. Takes off clothes and arranges it	0.124 NS	0.940
4. Cleans anogenital area	0.12 NS	0.940
5. Manages own bedpan or commode use at night only	1.216 NS	0.875
D. Transfer		
1. Moves in and out of bed	0.881 NS	0.644
2. Moves in and out of chair	1.423 NS	0.491
E. Continence		
1. Control urination	0.693 NS	0.707
2. Control defecation	0.541 NS	0.763
F. Feeding		
1. Gets food from plate into the mouth	No test due to constant value	
2. Drinks from a glass/cup		

Legend: * - significant NS – no significance

As presented in Table 6, there is no association between the marital status of the respondents and their capacity to perform Basic Activities of Daily Living.

For feeding, no statistics was computed because the entire respondents (107) yielded to the same answer of Independent (3) or the variables getting food from plate into the mouth and drinking from glass/cup is contrast. Therefore the null hypothesis is accepted.

Table 7: Relationship of Highest Educational Attainment and BasicActivities of Daily Living

Activities	τ_c	P
A. Bathing (either sponge bath, tub bath or shower)		
1. Gets in and out of tub/bathroom	0.011 NS	0.869
2. Bath self completely	0.002 NS	0.978
3. Bathes a single part of the body (back, genital, disabled extremity)	0.005 NS	0.945
4. Dries self completely	0.023 NS	0.754
B. Dressing		
1. Gets clothes from closets and drawers	0.018 NS	0.748

2. Puts on undergarments	0.005 NS	094
3. Dresses upper part of the body	-0.017 NS	0.814
4. Dresses lower part of the body	-0.017 NS	0.814
5. Manages fasteners/belts/suspender	-0.003 NS	0.95
C. Toileting		
1. Goes to toilet room	0.029 NS	0.673
2. Gets on and off from the toilet bowl/commode	0.047 NS	0.115
3. Takes off clothes and arranges it	0.017 NS	0.728
4. Cleans anogenital area	0.017 NS	0.728
5. Manages own bedpan or commode use at night only	0.078 NS	0.200
D. Transfer		
1. Moves in and out of bed	0.012 NS	0.207
2. Moves in and out of chair	0.036 NS	0.643
E. Continence		
1. Control urination	-0.009 NS	0.914
2. Control defecation	0.053 NS	0.458
F. Feeding		
1. Gets food from plate into the mouth	No test due to constant value	
2. Drinks from a glass/cup		

Legend: * - significant NS – no significance

Table 7 shows that there is no correlation between the highest educational attainment of the respondents and their ability to perform Basic Activities of Daily Living. Therefore, the null hypothesis is accepted.

For feeding, no statistics was computed because the entire respondents (107) yielded to the same answer of Independent (3) or the variables getting food from plate into the mouth and drinking from glass/cup is constant. This implies that the elderly can perform basic activities of daily living regardless their highest educational attainment.

Table 8: Difference between Source of Income and Basic Activities of Daily Living

Activities	Pensioner	Non-pensioner	T-value	P
A. Bathing (either sponge bath, tub bath or shower)				
1. Gets in and out of tub/bathroom	2.9348	2.8852	0.897 NS	0.372
2. Bath self completely	2.9348	2.8361	1.435 NS	0.154
3. Bathes a single part of the body (back, genital, disabled extremity)	2.9565	2.8852	1.393 NS	0.102
4. Dries self completely	2.9565	2.8689	1.650 NS	0.102
B. Dressing				
1. Gets clothes from closets and drawers	2.9130	2.7869	1.47 NS	0.143
2. Puts on undergarments	2.9565	2.882	1.393 NS	0.167
3. Dresses upper part of the body	2.9348	2.8852	0.897 NS	0.372
4. Dresses lower part of the body	2.9348	2.8852	0.897 NS	0.372
5. Manages fasteners/belts/suspender	2.9130	2.8525	0.975 NS	0.332
C. Toileting				
1. Goes to toilet room	2.9348	2.8689	1.156 NS	0.250
2. Gets on and off from the toilet bowl/commode	3.0000	2.9180	1.932 NS	0.058
3. Takes off clothes and arranges it	2.9783	2.9672	0.349 NS	0.728
4. Cleans anogenital area	2.9783	2.9672	0.349 NS	0.728
5. Manages own bedpan or commode use at night only	2.8043	2.7541	0.436 NS	0.664
D. Transfer				
1. Moves in and out of bed	2.8696	2.8525	0.252 NS	0.802
2. Moves in and out of chair	2.8913	2.8689	0.353 NS	0.725
E. Continence				
1. Control urination	2.9130	2.8525	0.975 NS	0.332
2. Control defecation	2.8913	2.852	0.098 NS	0.922
F. Feeding				
1. Gets food from plate into the mouth	3.0000	3.0000	No test due to constant	
2. Drinks from a glass/cup	3.0000	3.0000	value	

Legend: * - significant NS – no significance

As shown in Table 8, there is no significant difference between the basic activity of daily living and income of the respondents. Therefore, the null hypothesis is to be accepted.

For feeding, no statistics was computed because the entire respondents (107) yielded to the same answer of Independent (3) or the variables getting food from plate into the mouth and drinking from glass/cup is constant.

This implies that the source of income has nothing to do with the ability of the respondents to perform basic activities of daily living.

3.4. Relationship Between Instrumental Activities of Daily Living and Profile of The Respondents

The relationship between Instrumental Activities of Daily Living (IADL) and the age, gender, marital status, highest educational attainment and income was presented.

Table 9: Relationship of Age and Instrumental Activities of Daily Living

Activities	τc	P
A. Ability to use phone		
1. Operates phone on own initiative	-0.373	0.000
2. Looks up and dial numbers	-0.382	0.000
3. Answers phone calls	-0.439	0.000
4. Sends text messages	-0.441	0.000
B. Shopping		
1. Goes to market/shopping mall	-0.450	0.000
2. Shops for small purchases	-0.333	0.000
3. Shops for big purchases	-0.468	0.000
C. Food Preparation		
1. Plans meals	-0.262	0.000
2. Prepares meals to be cooked (washing, cutting, etc.)	-0.432	0.000
3. Cooks meals	-0.429	0.000
4. Serves meals	-0.388	0.000
D. Housekeeping		
1. Performs heavy domestic work such as fetching of water	-0.43	0.000
2. Performs light daily tasks such as dish washing and bed making	-0.234	0.001
E. Laundry		
1. Launders big/large items	-0.485	0.000
2. Launders small items	-0.326	0.000
F. Mode of Transportation		
1. Travels on public transportation or drives own car	-0.471	0.000
2. Climb in and off from a vehicle	-0.501	0.000
G. Responsibility for own medication		
1. Prepares own medication	-0.223	0.003
2. Takes medication in correct dosage	-0.222	0.003
3. Takes medication in correct time	-0.225	0.002
H. Ability to handle finances		
1. Budgets	-0.362	0.000
2. Pays rent and bills	-3.368	0.000
3. Goes to bank	-0.454	0.000
4. Manages day-to-day purchases	-0.461	0.000

Legend: * - significant NS – no significance

Table 10: Difference between Gender and Instrumental Activities of Daily Living

Activities	Male	Female	T value	P
A. Ability to use phone				
1. Operates phone on own initiative	1.6471	1.6429	0.025NS	0.980
2. Looks up and dial numbers	1.6471	1.6786	-0.187 NS	0.852
3. Answers phone calls	1.9020	1.8750	0.153 NS	0.879
4. Sends text messages	1.6471	1.5714	0.448 NS	0.655
B. Shopping				
1. Goes to market/shopping mall	2.4902	2.481	0.58 NS	0.954
2. Shops for small purchases	2.6275	2.6250	0.020 NS	0.984
3. Shops for big purchases	2.3725	2.357	0.100 NS	0.921
C. Food Preparation				
1. Plans meals	2.6471	2.6964	-0.388 NS	0.699
2. Prepares meals to be cooked (washing, cutting, etc.)	2.5098	2.6071	-0.686 NS	0.494
3. Cooks meals	2.5294	2.5893	-0.415 NS	0.679
4. Serves meals	2.5294	2.6607	-0.988 NS	0.325
D. Housekeeping				
1. Performs heavy domestic work such as fetching of water	2.3922	2.3214	0.435 NS	0.665
2. Performs light daily tasks such as dish washing and bed making	2.6275	2.7321	-0.881 NS	0.380
E. Laundry				
1. Launders big/large items	2.0916	2.3929	-2.233*	0.028
2. Launders small items	2.4314	2.6250	-1.277 NS	0.205
F. Mode of Transportation				
1. Travels on public transportation or drives own car	2.6078	2.5357	0.560 NS	0.577
2. Climb in and off from a vehicle	2.6275	2.5357	0.747 NS	0.457
G. Responsibility for own medication				
1. Prepares own medication	2.5294	2.7679	-1.859 NS	0.066
2. Takes medication in correct dosage	2.5490	2.7679	-1.750 NS	0.083
3. Takes medication in correct time	2.5490	2.7321	-1.421 NS	0.159
H. Ability to handle finances				
1. Budgets	2.4314	2.5000	-0.437 NS	0.663
2. Pays rent and bills	2.4510	2.4286	0.139 NS	0.890
3. Goes to bank	2.3922	2.3036	0.560 NS	0.577
4. Manages day-to-day purchases	2.3529	2.4286	0.509 NS	0.612

Legend: * - significant NS – no significance

The table above shows that there is a negative significant relationship between the age of the elderly and their ability to perform instrumental activities of daily living. This implies that as the elderly age, their ability to do instrumental activities of daily living decreases. Therefore, the null hypothesis is to be rejected.

A study by Blace (2012) shows a significant relationship between the disability prevalence rates of the respondents and their age. He stated that as the respondents grow older the prevalence of disability or experience of difficulty in one of the IADL also rises.

As presented in Table 10, using T-test, the probability values are greater than 0.05 which means that there is no significant difference between the gender of the respondents and their functional capacity regarding instrumental activities of daily living, except for Laundry-item number 2 or laundering of big or large items which has a t-value of -2.233 and a probability of 0.028, it means that there is a significant difference between gender and laundering of big/large items.

A study by Calenti et al (2009) shows that men are more dependent in activities such as doing the laundry (37.5% against 23.4% of women). This result may be associated with the fact that traditionally, women are more engaged to domestic activities than men.

Table 11: Association of Marital Status and Instrumental Activities of Daily Living

Activities	X2	P
A. Ability to use phone		0.119
1. Operates phone on own initiative	7.340 NS	
2. Looks up and dial numbers	7.829 NS	0.098
3. Answers phone calls	8.746 NS	0068
4. Sends text messages	17.939*	0.001
B. Shopping		
1. Goes to market/shopping mall	7.115 NS	0.130
2. Shops for small purchases	0.998 NS	0.910
3. Shops for big purchases	5.161 NS	0.271
C. Food Preparation		
1. Plans meals	1.880 NS	0.758
2. Prepares meals to be cooked (washing, cutting, etc.)	3.569 NS	0.467
3. Cooks meals	3.804 NS	0.433
4. Serves meals	2.668 NS	0.615
D. Housekeeping		
1. Performs heavy domestic work such as fetching of water	7.885 NS	0.096
2. Performs light daily tasks such as dish washing and bed making	0.505 NS	0.973
E. Laundry		
1. Launders big/large items	6.022 NS	0.197
2. Launders small items	5.422 NS	0.247
F. Mode of Transportation		
1. Travels on public transportation or drives own car	13.267*	0.010
2. Climb in and off from a vehicle	15.563*	0.004
G. Responsibility for own medication		
1. Prepares own medication	2.372 NS	0.668
2. Takes medication in correct dosage	1.878 NS	0.758
3. Takes medication in correct time	2.352 NS	0.671
H. Ability to handle finances		
1. Budgets	4.399 NS	0.355
2. Pays rent and bills	3.178 NS	0.528
3. Goes to bank	7.593 NS	0.018
4. Manages day-to-day purchases	12.841 NS	0.012

Legend: * - significant NS – no significance

Table 11 shows that almost all of the instrumental activities of daily living has no association with marital status of the respondents except for sending text messages which has a computed chi square value of 17.939 or probability of 0.001, traveling on public transportation or drives own car has 13.267 (P-value 0.010), climbing on and off from a vehicle has 15.563 (P value 0.004), going to bank has 7.539 (P value 0.018) and managing day to day purchases has 12.841 (0.012 probability), which means that these have a relationship with the marital status of the respondents.

According to a study by Cruz (2007) [7] entitled "*Active Life Expectancy Among Filipino Older People",* about 4 out of 10 widowers reported functional health problems which is twice the level observed among the currently married which means that marital disruption due to death of spouse is associated with significant levels of disability. This also agrees with a study by Calenti et al (2009) which shows that married people have less dependence ratios than single people.

Table 12: Relationship of Highest Educational Attainment and Instrumental Activities of Daily Living

Activities	τ_c	P
A. Ability to use phone		
1. Operates phone on own initiative	0.194*	0.009
2. Looks up and dial numbers	0.199*	0.007
3. Answers phone calls	0.21*	0.010
4. Sends text messages	0.149*	0.037
B. Shopping		
1. Goes to market/shopping mall	-0.003 NS	0.973
2. Shops for small purchases	0.064 NS	0.393

3. Shops for big purchases	-0.014 NS	0.872
C. Food Preparation		
1. Plans meals	-0.037 NS	0.571
2. Prepares meals to be cooked (washing, cutting, etc.)	-0.034 NS	0.656
3. Cooks meals	-0.007 NS	0.926
4. Serves meals	-0.019 NS	0.793
D. Housekeeping		
1. Performs heavy domestic work such as fetching of water	-0.033 NS	0.702
2. Performs light daily tasks such as dish washing and bed making	-0.061 NS	0.409
E. Laundry		
1. Launders big/large items	-0.079 NS	0.343
2. Launders small items	-0.026 NS	0.713
F. Mode of Transportation		
1. Travels on public transportation or drives own car	0.031 NS	0.700
2. Climb in and off from a vehicle	0.048 NS	0.555
G. Responsibility for own medication		
1. Prepares own medication	0.106 NS	0.13
2. Takes medication in correct dosage	0.102 NS	0.149
3. Takes medication in correct time H.	0.104 NS	0.138
Ability to handle finances		
1. Budgets	0.108 NS	0.195
2. Pays rent and bills	0.092 NS	0.283
3. Goes to bank	0.136 NS	0.120
4. Manages day-to-day purchases	0.066 NS	0.437
Legend: * - significant		NS – no significance

Table 12 shows that activities under shopping, food preparation, housekeeping, laundry, mode of transportation, responsibility for own medication and ability to handle finances have no significant relationship with the highest educational attainment of the respondents while activities under ability to use phone such as operates phone on own initiative has a computed Kendall's Tau c value of 0.194 and probability value of 0.009, looks up and dials numbers has 0.199 (probability of 0.007), answers phone calls has 0.214 (P- value of 0.010) and sends text messages has 0.149 (P-value of 0.037) which indicates that there is correlation between these activities and the highest educational attainment of the respondents.

Cruz (2007) stated on her study that education, literacy or the ability to read a simple message is associated with lower reported levels of disability. The better health status of those with higher education preparation may be an effect of generally both economic opportunities among better educated as well as better access to information and services that result in better health practices and outcomes.

A study by Frietas et al (2012) also shows that among the Instrumental Activities of Daily Living, there was a greater reliance on the use of phone, possibly related to high illiteracy rates among the elderly.

Table 13: Difference between Source of Income and Instrumental Activities of Daily Living

Activities	Pensioner	Non-Pensioner	T – value	P
A. Ability to use phone				
1. Operates phone on own initiative	1.8913	1.4590	2.575*	0.012
2. Looks up and dial numbers	1.9348	1.490	2.826*	0.006
3. Answers phone calls	2.1087	1.7213	2.227*	0.028
4. Sends text messages	1.8043	1.4590	2.024*	0.046
B. Shopping				
1. Goes to market/shopping mall	2.4783	2.4918	-0.096NS	0.923
2. Shops for small purchases	2.6739	2.5902	0.682 NS	0.497
3. Shops for big purchases	2.3696	2.3607	0.057 NS	0.497
C. Food Preparation				
1. Plans meals	2.7609	2.6066	1.265 NS	0.209
2. Prepares meals to be cooked (washing, cutting, etc.)	2.5652	2.5574	0.056 NS	0.956
3. Cooks meals	2.5870	2.5410	0.322 NS	0.748
4. Serves meals	2.6522	2.5574	0.737 NS	0.463

D. Housekeeping				
1. Performs heavy domestic work such as fetching of water	2.3478	2.3607	-0.078 NS	0.983
2. Performs light daily tasks such as dish washing and bed making	2.657	2.6721	0.199 NS	0.843
E. Laundry				
1. Launders big/large items	2.1522	2.2623	-0.642 NS	0.524
2. Launders small items	2.5000	2.5574	-0.375 NS	0.708
F. Mode of Transportation				
1. Travels on public transportation or drives own car	2.5652	2.5738	-0.066 NS	0.947
2. Climb in and off from a vehicle	2.5870	2.5738	0.107 NS	0.915
G. Responsibility for own medication				
1. Prepares own medication	2.8043	2.5410	2.221*	0.029
2. Takes medication in correct dosage	2.8043	2.5574	2.126*	0.036
3. Takes medication in correct time	2.7826	2.5410	1.988*	0049
H. Ability to handle finances				
1. Budgets	2.580	2.3770	1.375 NS	0.172
2. Pays rent and bills	2.6087	2.3115	1.937 NS	0.055
3. Goes to bank	2.5435	2.1967	2.317*	0.022
4. Manages day-to-day purchases	2.4783	2.3279	1.034 NS	0.304

Legend: * - significant NS – no significance

As presented in table 13, shopping, food preparation, housekeeping, laundry, mode of transportation and ability to handle finance that includes budgeting, paying of rents and bills, managing day to day purchases have no significant difference with the income of the respondents. Going to bank has a T value of 2.317 (P-value of 0.022), activities under ability to use phone – operates phone on own initiative has 2.575 (P-value of 0.012), looks up and dials numbers has 2.826 (P-value of 0.006), answers phone calls has 2.227 or a P-value of 0.028 and sends text messages has 0.046 or a p-value of 2.024, which means that these have significant difference with the income of the respondents.

The study of Torres et al (2009) shows that individual with low schooling level and low income has more functional limitations compared to persons with high socioeconomic levels.

4. Conclusion and Recommendation

Based on the findings, the following conclusions are drawn:

Majority of the respondents belong to the age bracket of 60- 69 and the least number of respondents interviewed belong to ages 80 -89. There is a small difference between the number of females (56 respondents) over the males (51 respondents). Almost all of the respondents are married and majority of them finished their tertiary education. Non-pensioner respondents dominate over pensioner.

All of the respondents are still capable of doing Basic Activities of Daily Living. The elderly needs assistance in doing some of the Instrumental Activities of Daily Living.

There is a significant relationship between the age of the respondents and performance of Basic Activities of Daily Living except for activities under toileting. This means that as people age the ability to perform Basic Activities of Daily Living decreases.

There is no correlation between the respondent's gender, marital status, highest educational attainment and income with their capacity of doing Basic Activities of Daily Living, this implies that these profiles does not have any effects on their capacity of doing Basic Activities of Daily Living.

There is a relationship between the age of the respondents and their ability of performing Instrumental Activities of Daily Living except for laundry. There is no association between the marital status of the respondents and Instrumental Activities of Daily Living except for some activities under ability of using phone, mode of transportation and handling of finances. There is no correlation between the highest educational attainment of the respondents and their capacity of doing Instrumental Activities of Daily Living except for ability of using phone.

There is no significant difference between the income of the respondents and Instrumental Activities of daily living except for ability of using phone and going to bank. In view of the findings and conclusions, the researcher recommends the following:

- Given that functional capacity of a human being declined with age, strategies that improve lifestyle of the elderly are needed mainly with respect to programs that promote the improvement of muscle and joint strength and social integration in and out of the family context.
- Employment for older persons is also critical for financial security as it generates income flow. Participation in the workforce should be encouraged as long as persons are able to continue to work. Job creation should be established to bring back older workers.
- Identification of factors associated with the functional disability of the elderly. This provides elements for prevention and intervention measures.
- Special benefits and discount privileges under the Expanded Senior Citizen Act of 2010 must be closely monitored, so that senior citizens enjoy fully said rights granted by the law and closely guard against abuses and violations.
- Expand coverage or improve accessibility and affordability of social and healthcare services to the elderly especially the indigent.
- Since the respondents of this study are only 107 and aged 60 to 89, a similar study should be conducted with older and larger number of respondents.

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