Social Isolation among Elder Population of Pakistan

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The main aim of this research was to construct the Social Isolation Scale to measure social isolation among elderly people. And also to explore different factors which cause social isolation. The study comprised of three phases. Phase I consisted the construction of Social Isolation Scale, in which construct was defined and item pool was generated at first step. 24 items were finally selected after committee approach. In second phase psychometric properties were determined through alpha coefficient reliability, item total correlation and inter item correlation. Five factors were generated through factor analysis. In third phase validation of Social Isolation Scale was done on sample of 600 old age people. Social Isolation Scale consisted of five factors which are relationship, loneliness, involvement, concrete benefits and activities. Items were found to be highly correlated with each other. Results of all estimates were significant. The finding of the study indicated that male elderly people are more socially isolated than females. Same results were obvious for the marital status; elderly people whose life partner is dead are more socially isolated than whose life partner is alive. Just like that the elderly people who have nuclear family system are more socially isolated than elderly people having joint family system. Less educated people are more socially isolated than highly educated elderly people. Different factors are involved in development of social isolation in late adulthood. Family can play effective role and elderly people are need to be encouraged to live happily so to reduce Isolation.

Keywords: social isolation, elderly people, relationship, loneliness

During the course of the life, an individual passes through several stages such as infancy, childhood, adolescence and old age. Ageing is a permanent biological change that takes place in all living things with the passage of time which ultimately results in death. Across the developed world, the onset of late adulthood is considered between a range of chronological ages of 50 to 70 (Victor & Bowling, 2012). There is a profound relationship between isolation and aging. Various social, physical and psychological conditions are associated with isolation. Mostly it is assumed those elderly people who are living alone or with their partners, have feelings of isolation due to the absence of social integration and lack of association between family members (Chohan, 2007).

According to Day (1992) social isolation is well-defined as the low level of satisfying relationships and lack of contribution in community life. Factors that contribute to social isolation comprise of loss, poor physical, mental and psychological health, decreased social interaction and transport related difficulties (Brennan, Moore & Smyth, 1995).

Among the various causes the death of the significant others especially the death of the spouse is the major cause of social isolation among elderly people (Lund, Caserta, & Dimond, 1989). Retirement is considered another cause of isolation, which means not only a loss of social status and determination in life but also the reduction in income. Retirement causes lack in one's source of social connection, physical issues may lessens the agility and negative stigma attached to elderly people may deject younger people to maintain intimate social relationship with them (Blau, 1956).

Elder people's need for family and community support is reflected through their living arrangements, which further indicate their socio cultural tendencies for example some elderly people choose to live in extended families while some others have desire of nuclear households (Estes, 2004). The percentage of elderly people living alone is escalating almost all over the world (Walker & Naeghele, 2000). Due to the rapid shift of young members of family to the urban areas severally effects the living conditions of elderly people, and it seems to be one of the basic reasons of social isolation in elderly people (Ramashala, 2001).

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Socioeconomic factor causes a migration of huge number of individuals from countryside to the cities which promote the expansion of nuclear families, while the joint family system is going to be collapsed. The degeneration of the joint family system, dislocation of cultural and familial bonds, causes poor family care and greater need for self and formal care. While joint family system is on decline, it has become much difficult to live together but the issue of access to basic life necessities and physical security has made it more challenging to live separately (Devi & Roopa, 2013). These factors also lead to social isolation in elderly people (Victor, Scambler, Bowling & Bond, 2005). Most of the elder people especially women, live alone. Mostly they are poorer than other age group individuals and often they are less capable and have less opportunity to earn their living. Elderly people frequently lose their jobs due to increased age and less agility. Inadequate incomes and poverty are usually linked with lack of housing facilities among elderly population which also cause social isolation (Walker, 2005).

In Europe the elder population is affected by the breakup of friends and the growing difficulties of replacing these relationships. As a result, in two third of countries a large proportion of elderly people are isolated (Owen, 2001). Another factor of social isolation is widowhood which increases the risk of aloneness. Moreover, new relationships get also disturbed due to the feelings of loneliness in previous widowhood (Tiikkainen & Heikkinen, 2005).

Traditional living arrangements of parents living with their children are becoming less common now days in most of the societies. In the past, living alone in late adulthood was considered as family abandonment. However, different researches show that elderly people of different cultures prefer to live in their own homes, no matter they live alone or with their families (Gilleard & Higgs, 2001). A huge percentage of elderly population in France do not want to go into a retirement home and majority of the families place their parents unwillingly in such homes (Rodwin & Gusmano, 2006).

Elder adults who suffer from severe prolonged physical disabilities, cognitive deterioration and depression, are less able or unable to maintain meaningful relationships and they have the greater risk of being isolated (Pillemer, Moen, Wethington, & Glasgow, 2000; Anderson, 2001; Conn, 2002). Elderly people are typically at an increased risk of developing some form of mental illness. Isolation effects physical health of elderly people and they suffered from chronic diseases such as heart disease, high blood pressure and diabetes. Individuals who have less social interaction may suffer higher rates of illness and eventually mortality (Seeman, 2000).

In Pakistan the elderly people in urban areas are working in government departments and some in non government organizations. Generally 60 years and above is the common age of retirement in our country. The strength of elderly people is increasing instantaneously which is accompanied by the issues of health, treatment, intimate relationships, housing, income security and social isolation (Pakistan Government of 2002, 2008). Rapid shift towards cities has become a great threat to family stability in various communities. Due to this shift elderly population is badly affected, because family life styles are undergoing quick and varied modifications and roles of different family members are continuously being changed. The social isolation of old elderly people in Pakistan is becoming a serious issue due to urbanization and industrialization. Aims and objectives of this study are:

- To construct the Social Isolation Scale.
- To study the social isolation among elderly people.
- To investigate the effects of some demographic variables, like gender, family system, marital status and education.

Method

This study consisted of following three phases:
Phase I: Construction of Social Isolation Scale
Phase II: Psychometric estimates of Social Isolation Scale
Phase III: Validation of Social Isolation Scale
Phase- I: Construction of Social Isolation Scale

Social Isolation Scale was developed by following the standard procedures and steps described below:

Step 1: Defining and Refining the Construct: It was started by defining the construct and developing the conceptual framework. The concept was refined by reducing contamination and deficiency. This new measure was developed by examining previous literature (Cattan, White, Bond, & Learmouth, 2005; Masi, Chen, Hakley, & Cacioppo, 2011; Findlay, 2003; Havens, Hall, Sylvestre, & Jivan, 2004) and consulting Subject Matter Experts (SME) on social isolation and various isolation scales that have been described by various researchers.

Step 2: Item Generation: In developing the Social Isolation Scale, construct-based approach was employed suggested by Jackson (1970), with an aim to produce a scale which should be based on theoretical approach. It was intended that the scale should possess good internal consistency along with least chance of scale overlaps. Previous studies conducted on social isolation published in research journals and online research data bases were quite fruitful in generating items for the scale. Initially a pool of 100 items was developed.

Step 3: Committee Approach: Committee was consisted of five psychologists in which researcher were also included. Each item was discussed and some of those items were rephrased and slightly modified so that those become more comprehensive.

Step 4: Try Out: To check the issue of language for responding the answers and any other problem of items, Social Isolation Scale (SIS) was administered on a small sample (N=20) of elderly people.

After considering the opinions and suggestions of panel of experts, Social Isolation Scale was originated. Purpose of this step was to check whether Social Isolation Scale is understandable and conveying the actual meaning to the target sample or not. It was consisted of 24 statements. It is a four point rating scale possible answers included 1 = None, 2 = Rare, 3 = Sometimes, 4 =Most of the time. Psychometric properties were determined in phase-II.

Phase II: Psychometric Estimates of Social Isolation Scale
Psychometric properties (item-total correlation and alpha coefficient reliability), correlation and factor structure were determined.

Participants
In Phase II, a purposive convenience sample (N = 400; men = 200, women = 200) was selected. The age range of participants was 60 to 75 years (M =68.39, SD =5.74). Minimum qualification was 10 years of education and retired from any organization, as an inclusion criterion for sample.

Social Isolation Scale: Social Isolation Scale is a 24 items instrument. It is based on five factors emerged by factor analysis, namely relationships, loneliness, involvement, concrete benefits and activity. Subscale of "Relationship" comprised of 6 items, "Loneliness" 5 items, "Activity" 5 items, "Involvement" 4 items and "Concrete benefits" 4 items. Social Isolation Scale was rated on 4-point rating scale ranging from 1 =Most of the time to 4=None. Item no. 9, 10, 13, 14, 15, 16, 19 and 23 are reverse scored.

Procedure
After taking the informed consent**,** the researcher collected the data by delivering the scale to the respondents. The selected sample was instructed to give response on every item of the scale as honestly as possible. They were allowed to complete the scale on their ease as there was no time limit. After getting data, scoring and analysis was done (For results see Results Section).

Phase –III: Validation of Social Isolation Scale
Social Isolation Scale was validated by administering on a large sample of elderly people.

Hypotheses
- Male elderly people are more socially isolated than female elderly people.
- Elderly people whose life partner is alive are less socially isolated than those whose life partner is dead.
- Elderly people living alone are more socially isolated than old age people living with their children.
- Graduate elderly people are less socially isolated than undergraduate elderly people.

Participants

A purposive convenience sample (*N* = 600; men = 300, women = 300) was selected for Phase-III. The age range of participants was 60 to 75 years (*M* =67.97, *SD* =6.23). Minimum qualification was 10 years of education and retired from any organization, as an inclusion criterion for sample.

Procedure

After taking the informed consent**,** the researcher collected the data by delivering the scale to the respondents. The respondents were instructed to complete the scale as honestly as possible and make sure to give response on every item. There was no time limit for the completion of scale as they were allowed to complete the scale on their ease. After getting data, scoring and analysis were done.

Results

In order to meet the objectives of the study and to test the formulated hypotheses a series of statistical analyses were carried out.

Results of Phase-II

After computing Item total correlation of Social Isolation Scale (SIS), factor analysis was run to validate the factor structure.

Results in Table 1 indicate that all the items are significantly correlating with total score of Social Isolation Scale and correlation coefficients are ranging from .73 to .89 for item no. 1 and 7, respectively. This reflects upon the construct validity of the measure.

Table 1

Item-total Correlation of Social Isolation Scale. (*N* = 400)

Item No.	Corrected Item-total Correlation	Item No.	Corrected Item-total Correlation
1	.73	13	.82
2	.77	14	.79
3	.74	15	.83
4	.79	16	.77
5	.74	17	.79
6	.83	18	.83
7	.89	19	.83
8	.75	20	.79
9	.74	21	.78
10	.79	22	.76
11	.78	23	.81
12	.82	24	.82

Factor analysis can be used to assemble common variables into descriptive categories. Factor analysis operates on the notion that measurable and observable variables can be reduced to fewer latent variables that share a common variance, which is known as reducing dimensionality (Bartholomew, Knott, & Moustaki, 2011). According to Child (2006), the two main factor analysis techniques are Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). In the present research, Principle Component Method of EFA was used to explore the factor structure of Social Isolation Scale.

A principal components analysis with Varimax rotation was performed on the data and factor loadings are shown in Table 2. While observation of the Scree plot suggested that five factors provided the best account of the data.

Table 2

Factor Loadings of the Items of Social Isolation Scale Obtained through Principal Component Factor Analysis (N = 400)

	Relationship	Loneliness	Activity	Involvement	Concrete benefits
Item No.	(Factor-I)	(Factor-II)	(Factor-III)	(Factor-IV)	(Factor-V)

11	**.80**	.12	.11	.21	.11
1	**.79**	.15	.10	.14	.13
2	**.73**	.19	.12	.16	.21
3	**.64**	.17	.13	.14	.14
18	**.72**	.21	.15	.20	.23
4	**.79**	.13	.14	.14	.19
13	.13	**.73**	.22	.13	.14
19	.15	**.77**	.21	.21	.21
17	.23	**.87**	.14	.26	.21
6	.22	**.84**	.15	.14	.13
20	.14	**.76**	.17	.19	.17
15	.17	.24	**.74**	.17	.16
23	.23	.21	**.73**	.13	.15
16	.13	.15	**.75**	.24	.14
22	.18	.13	**.84**	.13	.20
10	.09	.16	**.78**	.15	.21
14	.13	.17	.18	**.84**	.17
9	.21	.22	.22	**.78**	.16
7	.29	.13	.21	**.78**	.11
5	.11	.16	.18	**.85**	.12
24	.18	.18	.27	.12	**.83**
8	.22	.12	.20	.15	**.68**
12	.17	.15	.15	.18	**.72**
21	.20	.22	.12	.21	**.88**
Eigen Values	23.799	17.984	12.760	9.364	7.007
% Variance	25.82	17.43	14.50	11.85	5.36
Cum. %	15.828	43.25	57.75	69.6	74.96

Table 2 shows results of EFA revealing that Social Isolation Scale is clearly clustered into five separate factors. Final scale consisted of 6 items of factor I (Relationship), 5 items of factor II (Loneliness), 5 items of factor III (Activity), 4 items of factor IV(Involvement) and four items of factor V(Concrete benefits). The results show that Eigen value of Factor I is 23.79 which explains 25.82% of variance. Factor II has the Eigen value of 17.98 which explains 17.43% of the variance, Factor III has the Eigen value of 12.76 which explains 14.50% of the variance, Factor IV has the Eigen value of 9.36 which explains 11.85% of the variance and Factor V has the Eigen value of 7.01 which explains 5.36% of the variance. Scree plot also showed the same results.

Inter-scale correlation shows the relationship between factors of Social Isolation Scale.

Table 3

Correlation Matrix of Subscales of Social Isolation Scale (N=400)

	Relationship	Loneliness	Activity	Involvement	Concrete benefits
Relationship	---	-.65**	.58**	.73**	.59**
Loneliness	---	---	-.71**	-.68**	-.57**
Activity	---	---	---	.63**	.67**
Involvement	---	---	---	---	.76**
Concrete benefits	---	---	---	---	---

**p<.01

Table shows that Relationship is significantly negatively associated with Loneliness, but positively related with Activity, Involvement and Concrete benefits. Loneliness is negatively correlated with Activity, Involvement and Concrete benefits. Activity is positively correlated with Involvement and Concrete benefits, while Involvement is also positively correlated with Concrete benefits.

Alpha reliability Coefficients were computed to found the internal consistency of the scale.

Table 4

Alpha Reliability Coefficient of Social Isolation Scale and its subscales (N=400)

Scales	No. of Items	Alpha Coefficient
Relationship subscale	6	.79

Loneliness subscale	5	.78
Activity subscale	5	.83
Involvement subscale	4	.85
Concrete benefits subscale	4	.79
Total Social Isolation Scale	24	.89

Table shows the Alpha reliability coefficient of Social Isolation Scale and its subscales, indicating the measures as dependable and adequate.

Results of Phase-III

After computing Alpha Reliability Correlation, differences on demographic variables (like gender, education) were also explored.

Table 5
Alpha Reliability Coefficient of Social Isolation Scale and its subscales (N=600)

Scales	No. of Items	Alpha Coefficient
Relationship subscale	6	.82
Loneliness subscale	5	.81
Activity subscale	5	.83
Involvement subscale	4	.87
Concrete benefits subscale	4	.79
Total Social Isolation Scale	24	.90

Table 5 shows the Alpha reliability coefficients for Social Isolation Scale. The significant reliability indicates that Scale is reliable to measure Social isolation among elderly people.

Table 6
Mean, Standard deviation, and t value of Male and Female old age people on Social Isolation Scale (N=600)

	n	M	SD	t	p	95% CI		Cohen's d
						LL	UL	
Male	300	68.42	6.77					
				2.84	.005	1.15	6.52	0.56
Female	300	64.58	6.73					

df=598, LL= Lower Limit, UL= Upper Limit, CI= Confidence Interval, LL= Lower Limit,

Table 6 shows the significant differences between male and female elderly people on Social Isolation Scale. The mean column shows that male elderly people are more socially isolated (M=68.42, SD=6.77) than female elderly people (M=64.78, SD=6.73).

Table 7
Mean, Standard deviation and t value of elderly people living with children or alone on Social Isolation Scale (N=600)

	n	M	SD	t	p	95% CI		Cohen's d
						LL	UL	
Living with Children	285	56.63	6.95					
				0.21	.000	4.35	5.38	.01
Living Alone	315	66.11	7.76					

df=598, LL= Lower Limit, UL= Upper Limit, CI= Confidence Interval, LL= Lower Limit,

Table 7 shows the significant difference between elderly people living with children or alone on social isolation scale. It is indicated from mean column that people living alone are more socially isolated (M= 66.11, SD=7.76) than elderly people living with their children (M=56.63, SD=6.95)..

Table 8
Mean, Standard deviation and t value of elderly people whose life partners are alive or dead on Social Isolation Scale (N=600)

	n	M	SD	t	P	95%CI LL	UL	Cohen's d
Life partner Alive	305	63.89	6.83					
				2.45	.016	.71	6.74	.54
Live partner Dead	295	67.63	6.81					

df= 598, LL= Lower Limit, UL= Upper Limit, CI= Confidence Interval, LL= Lower Limit

Table 8 shows the significant differences between elderly people whose life partner is alive or dead on Social Isolation Scale. The mean column shows that the elderly people whose life partner is dead are more socially isolated (M=67.63, SD=6.81) than elderly people whose life partner is alive (M=63.89, SD=6.83).

Table 9

Mean, Standard deviation and t value of Graduate and undergraduate elderly people on Social Isolation Scale (N=600)

	N	M	SD	t	P	95%CI LL	UL	Cohen's d
Graduate	300	62.89	8.83					
				4.45	.01	.81	7.72	.76
Under graduates	300	69.63	7.81					

df= 598, LL= Lower Limit, UL= Upper Limit, CI= Confidence Interval, LL= Lower Limit

Table 9 shows the significant differences between graduate and under graduate elderly people on Social Isolation Scale. The mean column shows that the graduate elderly people are less socially isolated (M=62.89, SD=8.83) than under graduate elderly people (M=69.63, SD=7.81).

Discussion

Aging is a series of progressions that continues throughout the life course. It represents a closing period when individual looks back in his life, get satisfied on his past successes and sometimes get depressed and disappointed at failures but then begins to finish off his life course. To Adjusting to the changes that are accompanied to the old age, it is required that an individual is flexible and can adopt new skills to cope up with the changes that are occuring in their lives (Warnick, 1995).

Due to improvement of health care education the elderly population is getting larger and larger. Their sense of self is being challenged by their physical and psychological changes. They are unable to live their lives happily. Many people experience isolation and depression in later life, that can be due to living alone or lack of intimate relationships, and as a result those people become unable to participate in different activities held by communities. Advancing of age, make it unavoidable that people lose association with different relationships and it becomes much hard to belong to new relationships.

The present research was carried out to find the social isolation among elderly population and to investigate the effects of some demographic variables on social isolation. For this purpose social isolation scale was constructed and administered on a small sample of elderly people for try out to check out its reliability. Psychometric properties were established then by administering the Scale on elderly people. Social Isolation Scale was found reliable. Results of the inter item correlation showed that items were correlated with each other and all were measuring the same construct that was social isolation. Through Factor analysis five factors i-e Relationship, Loneliness, Involvement, Concrete benefits and Activities, were established. Then Social Isolation Scale was administered on a large sample for validation and to test the formulated hypothesis of main study.

According to first hypothesis, male elderly people are more socially isolated than female elderly people. Significant differences between male and female on social isolation scale were found. Men constantly report being more isolated than women have a low level of emotional support and depend on employment, relationships and spouses for social networks and support (Flood, 2005, Patulny, 2009). It was found by Arber, Davidson and Ginn (2003) that elderly UK men have fewer friends, are more isolated and lonelier than elderly

woman. Findlay and Cartwright (2002) also had the same findings that the elderly men are at a greater risk of social isolation than women.

According to second hypothesis, elderly people living alone are more socially isolated than elderly people living with their children. Mostly elderly people married or widowed live with their children in our society. They experience less continuity in their life, dissatisfaction, and social isolation. But they are more stable than elderly people who live alone. Elderly people living alone are neglected, less cared and useless; they have fewer close friends or lack the social network due to retirement. The peer groups and colleagues are companions outside the family. Many retired workers experience isolation even living with family because of less social interaction. Social isolation is one of the major problems faced by the elderly people due to the industrialized world. Elderly people are devalued because they are no longer economically productive. They lose the satisfying relationships, which in turn cause negative feelings and sufferings to elderly people (Walker & Herbitter, 2005).

According to third hypothesis, elderly people whose life partner is dead are more socially isolated than elderly people whose life partner is alive. Significant differences between life partner alive and dead on social isolation scale were found. Researches support this finding as elderly women who are at first months of widowhood feel isolated than others who have passed already the first year. The loss of the partner causes the sense that they are alone; they refused to do the same things as they used to do and suffer from isolation (Jakobsson & Hallberg, 2005). The majority of widowers lives alone, has disabilities and is vulnerable to experience isolation (Berghdahl et al., 2005).

According to the fourth hypothesis, graduates or highly educated elderly people are less socially isolated than under graduates or less educated elderly people. According to the researches, lower income, when linked with less education, negatively influences health condition and is associated both a limiting social network and greater loneliness, which in turn impacts health status and social isolation (Cox, Spiro & Sullivan, 1988). In some other studies Isolation is associated with low level of education (Beck, Shultz, Walton, & Walls, 1990; Hector-Tylor & Adams, 1996; Victor et al. 2005). The reason for this may be that limited education is associated with narrower social circle (Dykstra & de Jong-Gierveld, 1999). According to Mullins, Elston and Gutkowski (1996), there is an indirect relationship between loneliness and education. Some other researchers recognized "educational qualifications" as a defensive factor against aloneness (Tiikkainen & Heikkinen, 2005). Highly educated elderly population may find their leisure time activities i-e reading magazines, newspapers and writing piece of literature. They stay with their memories of good days through writing autobiographies. Besides this highly educated people keep them engaged in other welfare activities like community development programs and being a mentor, facilitating younger adults of their family as well as other people in their social settings. In this manner they don't feel such loneliness which is experienced by less educated elderly people.

Limitations and Suggestions
As only close ended questions were used so suggested that open ended questions should also be included in questionnaire for more accurate and in depth information for research.
- To provide additional support to the validity of the test, the sample size of the study can be enlarged.
- Another limitation of the study is that it was not investigated that how other groups, such as next of kin, younger people and health care workers, understand isolation of elderly people.
- There should be an increased awareness of the problems that isolation can cause and importance of social relationships in schools, workplaces, other community settings and the media using existing initiatives on mental health and well being.
- An understanding of the impact of isolation on both physical and mental health with in medical education and social services should be given.

Implications
It is necessary to arrange awareness programs through different seminars, meet up groups, workshops for family members of elderly people. Awareness programs should be conducted related to mental and physical health care of elderly people. Mass media can develop awareness in the population about self-esteem and respect of senior citizens. NGOs can play active role in designing programs for elderly population by this they may become able to earn their livings and can utilize their capabilities which is also beneficial for them to stay healthy. It is advised that the awareness programs for the rights of elderly people should be scheduled so that they may be able to enjoy human rights and fundamental freedom when residing in any shelter, care or

treatment facility, including full respect of their dignity, believes, needs, privacy and for the right to make decisions about their care and the quality of their lives.

Conclusion

The present study was carried out to find the social isolation among elderly people and to investigate the effects of some demographic variables like age, gender and education on social isolation. It was concluded that there are gender differences in social isolation. Social isolation is also affected by the marital status of elderly people which is also supported by different researches. Retirement is accompanied by loss of social contacts through work, which is especially important to elderly men. Widowhood also brings with its shifts and changes in individual's social networks. Family can play effective role and elderly people need to be motivated and encouraged about how to live happily in isolation.

References

Anderson, D. N., (2001). Treating depression in old age: the reasons to be positive. *Age and Ageing, 30*(1), 13-17.

Arber, S., Davidson, K., & Ginn, J. (2003). Changing approaches to gender and later life. In S. Arber, K. Davidson, & J. Ginn(Eds.), *Gender and aging: changing roles*(pp. 1-14). New York, NY:Mc Graw Hill International.

Bartholomew, D., Knott, M., & Moustaki, I. (2011). *Latent variable models and factor analysis: A unified approach* (3rd ed.). West Sussex, UK: John Wiley & Sons.

Beck, C., Shultz, C., Walton, C.G., Walls, R. (1990). Predictors of loneliness in older women and men. *Journal of Women and Aging, 2*, 3-31.

Bergdahl, E., Gustavsson, J. M. C., Kallin, K., von Heideken, P., Lundman, B., Bucht, G.(2005). Depression among the oldest old: The Umea 85+ study. *International Psychogeriatrics, 17*, 557–575.

Blau, Z. S. (1956). Changes in Status and Age Identification. *American Sociological Review, 21* (2), 198- 203.

Brennan, P. F., Moore, S. M. & Smyth, K. A. (1995). The effects of a special computer network on care-givers of persons with Alzheimer's disease. *Nursing Research, 44*(3), 166–172.

Cattan, M., White, M., Bond, J., Learmouth, A. (2005) Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions. *Ageing and Society, 25*(1), 41-67.

Child, D. (2006). *The essentials of factor analysis* (3rd ed.). New York, NY: Continuum International Publishing Group.

Chohan, R.A. (2007). *Social isolation in old age, responsibilities of family members, rights of senior citizens, A case study of Quetta district.* (Unpublished PhD Dissertation). Department of social work University of Balochistan Quetta

Conn, D. K. (2002). Mental health issues of particular groups: Seniors living in long term care facilities. *Writings in Gerontology National Advisory Council on Aging: Mental health and aging.*

Cox, C., Spiro, M. & Sullivan, J. (1988). Social risk factors: Impact on elders' perceived health status. *Journal of community health nursing, 5*(1), 59-73.

Day, A. (1992). *Opening address*. Proceedings of the Social Isolation Conference, Canberra, Australia.

Devi, L., & Roopa, K. S. (2013). Quality of life of elderly men and women in institutional and noninstitutional settings in urban Bangalore district. *Research Journal of Family, Community, and Consumer Sciences, 1*(3), 7-13.

Dykstra, P.A., de Jong Gierveld, J. (1999) Differential indicators of loneliness among elderly. The importance of type of partner relationship, partner history, health, socio-economic status and social relations. *Tijdschr Gerontol Geriatr, 30*, 212-225.

Estes, C.L. (2004). Social Security privatization and older women: A feminist political economy perspective. *Journal of Aging Studies, 18*(1), 9–26.

Findlay, R.A. (2003) Interventions to reduce social isolation and loneliness among older people: where is the evidence? *Ageing and Society, 23* (5), 647-658.

Findlay, R. & Cartwright, C. (2002). *Social Isolation and Older People: A Literature Review*. Australasian Centre on Ageing, University of Queensland: Brisbane.

Flood, M., (2005). *Mapping Loneliness in Australia*. The Australia Institute.

Gilleard, C & Higgs, P. (2001). *Cultures of Aging*. London: Prentice Hall

Havens, B., Hall, M., Sylvestre, G. & Jivan, T. (2004). Social isolation and loneliness: differences between older rural and urban Manitobans. *Canadian Journal on Aging*, *23*(2), 129–140.

Hector-Taylor, L., Adams, P. (1996). State versus trait loneliness in elderly *New Zealanders. Psychological Report, 78*, 1329-1330.

Jackson, D.N. (1970). A sequential system for personality scale development. In C.D. Spielberger (Ed.), *Current topics in clinical and community psychology*. New York: Academic Press C.D.

Jakobsson, U. & Hallberg, I. R., (2005). Loneliness, fear, and quality of life among elderly in Sweden: a gender perspective. *Ageing, Clinical and Experimental Research, 17*(6), 494-501.

Lund, D. A., Caserta, M. S. & Dimond, M. F. (1989). *Effectiveness of self-help groups for older bereaved spouses.* Annual Meeting of the Gerontological Society of America, Minneapolis, Minnesota.

Masi, C. M., Chen, H.Y., Hakley, L.C., & Cacioppo, J. T. (2011). A meta-analysis of interventions to reduce loneliness. *Personality and Social Psychology Review, 15*(3), 219-266.

Mullins, L.C., Elston, C.H., & Gutkowski, S.M. (1996). Social determinants of loneliness among older Americans. *Genetic, Social and General Psychology Monographs, 122*, 453-73.

Owen, T. (2001). The high cost of isolation. *Working with Older People, 5*(1), 21–23.

Pakistan, Government of 2002. (2008). *Ageing in Pakistan: A Situation Analysis.* Islamabad: Ministry of Social Welfare and Special Education.

Patulny, R., (2009). *The golden years?* Social isolation among retired men and women in Australia, Australasian Institute of Family Studies, Family Matters, 83, pp 39-47.

Pillemer, K., Moen, P., Wethington, E., & Glasgow, N. (2000). *Social integration in the second half of life.* Johns Hopkins University Press; Baltimore.

Ramashala, M. F. (2001). Living Arrangements, Poverty and the Health of Older Persons in Africa. In Living Arrangements of Older Persons. *Population Bulletin of the United Nations, Special Issue Nos. 42/43*, 365.

Rodwin, V. G. & Gusmano, M. K. (2006). Growing Older in World Cities. Implications for Healthy Aging, 27(6), November-December.

Seeman, T. E. (2000). Health Promoting Effects of Friends and Family on Health Outcomes in Older Adults. *American Journal of Health Promotion, 14*, 362–370.

Tiikkainen, P. & Heikkinen R. (2005). Associations between loneliness, depressive symptoms and perceived togetherness in older people. *Aging & Mental Health. 9*(6), 526–534.

Victor, C & Bowling A (2012). A longitudinal analysis of loneliness among older people in Great Britain. *The Journal of Psychology: Interdisciplinary and Applied, 146* (3), 313-331.

Victor, C. R., Scambler, S., Bowling, A., Bond, J. (2005). The prevalence of, and risk factors for, loneliness in later life: A survey of older people in Great Britain. *Ageing and Society, 25*, 357–375

Walker, A. (2005). A European perspective on quality of life in old age. *European Journal of Ageing, 2*, 2–12.

Walker, A. & Naeghele, G. (2000). *The Politics of Ageing in Europe*. OUP: Milton Keynes.

Warnick, J. (1995). *Listening with different ears: Counseling people over sixty.* Ft. Bragg CA: QED Press.

Walker, J., & Herbitter, C. (2005). *Aging in the Shadows: Social Isolation among seniors in New York City.* United Neighborhood Houses of New York.