

## Relationship between Ego Integrity, Despair, Social Support and Health Related Quality of Life

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The present study purports to explore the inter-relationship between despair, ego integrity, social support and health-related quality of life in older adults and to identify ego integrity and social support as predictors of health related quality of life. A correlational study was conducted on a purposive sample of 100 older adults from Lahore. The sample consisted of 50 men and 50 women. Each group completed a series of questionnaires including Ryff's Ego Integrity Scale (EIS), Medical Outcome Studies Social Support Survey (MOS SSS), and Short Form 36 (sf36) Health Survey. Correlation analysis suggested that as ego integrity increases social support as well as mental and physical health of older adults also increases. The results of the current investigation also proposed that the older adults who have high degrees of social support have high levels of ego integrity and are mentally healthy, though their physical health is poorer. In addition the analysis of variance suggested that economic stability is an important factor in maintaining high levels of ego integrity and mental and physical health, however companionship is more important in maintaining mental health. The results of multiple regression analysis showed that ego integrity and social support are significant predictors of mental health whereas demographic variables of age, exercise, presence of chronic illness and employment status were found to be significant predictors of physical health.

*Keywords:* despair, ego integrity, social support and health related quality of life

There has been an increase in the number of older persons worldwide in recent years (Ibrahim, Ghabrah & Qadi, 2005) and by 2050, two billion people will be aged 60 and older (WHO, 2014). Aging or growing old is a natural and unavoidable process that everyone has to go through. The age of 60 to 65 years is said to be the beginning of old age in most developed countries represented by eighth stage of psychosocial development and corresponds to the development of personality in late adulthood (Erickson, 1963). Erikson (1963) theorized that when people pass from one psychosocial stage to another they tend to balance the inner psychological and external social tension. Within each stage the individual is confronted with negative opposing forces, for example despair as opposing to ego integrity. Erikson termed challenges faced at each stage as psychosocial crises and with their successful resolution at one stage enables an individual to enter the next stage of psychosocial development (Erickson, 1963).

Ego integrity versus despair is the last stage of personality development that involves accepting one's life as it is (Erickson, 1963). The older adults who are successful at this feel contented with their life and experience a feeling of completeness (Berks 2009). Erikson (1963) gave the description of experience of ego integrity "as feeling a sense of enduring wholeness, an effectively integrated belief that one's life makes sense and fits together in a meaningful way," and viewed life review as one of the most important task of this last stage. He noted that older age individuals try to make the sense of their life by reviewing it and confronting the reality of death. Those who are successful, maintain a positive

personality and they gain a holistic understanding of themselves whereas those who do not successfully confront their past, get stuck in the psychosocial crises i.e. despair (Erickson, 1963; Torges, Stewart & Duncan, 2009). Older adults, through reminiscence or life review attain ego integrity and avoid despair. Haber (2006) identified ego integrity as a crucial component of life satisfaction). Despair is related with hatred and repentance (Haber, 2006) and if an older person is unable to accept his life, it may lead to the predominance of despair (Hearn 1977).

Social support is a process that starts from the day the baby starts developing from the form of an embryo and as life goes on the individual gains support from other family members such as parents and siblings. Later peers at school and colleagues at work provide varieties of social support network (Cobb, 1976). In late adulthood as individuals become fragile, social support from family becomes crucial; and if it is not available it becomes the most important stressors that may affect the overall health of old-aged adults (Berkman & Syme, 1979) especially if they experience social isolation (White et al, 2009). Social support is described as "support accessible to an individual through social ties to other individuals, groups, and the larger community" (Lin, Simeone, Ensel & Kuo, 1979) and acts as a buffer against negative life events to help enhance self-esteem and self-image (Towey, n.d.). Cohen and Wills (1985) add that social support decreases stress when need matches what one receives (. Thus when social support is low it can dangerously affect health in older individual and when this support is abundant it results in better physical, mental and psychological health (Matteson & Hall, 2011). To understand social support we must also take a glance at actual and perceived support.

Health is defined as "a state of complete physical, social and mental well-being and not merely the absence of disease or infirmity" (WHO, 2003,) and Quality of Life can be defined as "a state of perceived health and its effects on person" (Henderson, 2008,). Health-Related Quality of Life (HrQoL) includes factors like physical, psychological and social aspects of wellbeing and

avoidance of effects of illness, availability of treatment and infirmity. Individuals appraise HrQoL to their level of functioning and contentment weighing it against what they perceive as “ideal” health. It consists of all those areas, which can either positively or negatively, influence or be affected by health (Jaszcz, Kloczek, Adamczyk & Bulpitt, 2013).

The study aimed to explore the interrelationship between despair, ego integrity, social support and HrQoL in older adults, with emphasis on how to identify ego integrity, despair and social support as predictors of HrQoL. Butler (1963) through his clinical observations reports ego integrity is directly related to life review, thus in many studies, life review was shown to be directly correlated with ego integrity (Taft & Nehrke, 1990; Cook, 1998; Fielden, 1990) however, group reminiscence showed no significant effect on depression or life satisfaction, but did improve self-esteem (Chao et al, 2006). Haight and other researchers found that life review was helpful in alleviating symptoms of depression (Bohlmeijer, Smit & Cuijpers, 2003; Haight, Michel, & Hendrix, 1998; Haber, 2006; Haight et al., 2000; Haber, 2006; Watt and Cappeliez, 2000). Review of literature also shows that group life review activities plays a part in maintaining and improving the QoL in the elderly (Hanaoka, & Okamura, 2004; Kim, Yun & Sok, 2006) and Psychological well-being and health in older adults is negatively affected by loneliness and social isolation (Alpass & Neville, 2003; Frerichs et al, 1982). Numerous studies reveal a positive relationship between social support and life satisfaction (Mahanta & Aggarwal, 2013; Newsom & Schulz, 1996; Onyishi, Okongwu & Ugwu, 2012; Yeung & Fung, 2007; Young, 2006; Matheny et al, 2002; Malinauskas, 2010; Onyishi, Okongwu & Ugwu 2012).

A review of existing literature suggests that a well-developed network of social support helps older adults to reduce the stress and provides them with opportunities for personal growth which leads to an increased level of life satisfaction (Wan, Jaccard, & Ramey, 1996) whereas impoverished social support leads to depression or despair (Aneshensel & Frerichs, 1982)

Cassel (1976) and Cobb (1976) suggest that social ties and relationships have the quality to protect people from the deleterious effects of stress and contributes to health; the two factors are therefore positively associated (Berkman, Leo-Summers, & Horwitz, 1992; Brummett et al., 2001; Frasure-Smith et al., 2000; Kaplan et al., 1988; Orth-Gome'r, Rosengren, & Wilhelmsen, 1993; Rutledge et al., 2004; Williams et al., 1992; Unchino, 2009; Cohen & Syme, n.d.; Horsten et al., 1999; Wang, Mittleman & Orth-Gome'r, 2005; Unchino, 2009; Trieber et al., 1991; White et al., 2009).

Based on previous researches we propose, social support would be positively associated with ego integrity and HrQoL and negatively associated with despair in older adults. Social support and ego integrity will be significant predictors of HrQoL in older adults and there will be a significant difference between level of ego integrity and HrQoL in older adults with different marital statuses. The hypotheses to be tested given below

There will be a significant relationship between despair, ego integrity, social support and health related quality of life in older adults.

Social support and Ego Integrity is a significant predictor of HrQoL

Social support is a significant predictor of ego integrity.

There will be a significant difference between level of ego integrity and HrQoL in older adults in working and non-working older adults.

## Method

### Participants

A purposive sample of older 50 men and 50 women was collected from different areas of Lahore, such as; parks, mosques, hospital outpatient departments etc. Participants 65 years or above were included in the study and came from a variety of educational levels, marital and employment statuses. Individuals below the age of 65 years or suffering from terminal illnesses or residing in old homes were excluded.

The mean age of the sample was 70.77 years. 27% were employed, 51% were unemployed and 22% were retired. As far as marital status is concerned 52% of the total sample was married, 13% were unmarried, 10% were divorced and 25% were widowed. Moreover, the percentage of exercising older adults was 39% and that of non-exercising older adults was 61%.

### Measures

**Ego Integrity Scale (EIS).** Developed by Ryff and Heincke (1983) is based on Erikson's ego integrity concept and examines life satisfaction, regrets, achievements and aging anxiety (Hawkes, 2004). It consists of 16 items, seven of which connote the positive resolution of the last stage of Erikson's theory i.e., ego integrity and nine items refer to the negative resolution i.e., ego despair. In order to reduce response bias the items are phrased in positive and negative direction (Hoang, 2009). The high scores reveal high level of ego integrity and low levels of despair where as low scores depict lower level ego integrity (Hoang, 2009). The scale also has high internal consistency reliability ranging between .80 and .82 (Ryff and Hiencke, 1983). Furthermore 6 weeks test-retest reliability in a sample of college students was reported to be .85 (Ryff and Hiencke, 1983). The scale was translated in Urdu by Ghayas and Batool (2014). The internal consistency reliability of the translated version of the scale was calculated to be 0.73.

**Medical Outcome Study Social Support Survey (MOS SSS).** This is a multi-dimensional scale developed by Sherbourne and Stewart (1991) to measure five dimensions of social support i.e. emotional support, informational support, tangible support, positive social interaction and affectionate support. All the five subscales have a very high reliability with alpha's greater than 0.91 (Sherbourne & Stewart, 1991). This scales was translated into Urdu language using back-to-back procedure for translation. At first the source language of the scale i.e. English was translated into targeted language i.e. Urdu by three independent translators (three lectures of Applied Psychology Department) whose mother language was Urdu, then the scale was again back translated into source language by three English language experts (two lecturers of English literature and 1 graduated student of English literature). The translators involved in back translations were not shown the original scale. Back translation into source language was done to ensure that the translated version of the original scale conveys the same meaning as the original scale. After comparing translations best Urdu translation was selected by a research professional in this area.

**Short Form 36 Health Survey (SF-36).** The SF-36 is a multi-purpose health survey with 36 questions (Ware, Gandek and the IQOLA Project Group. 1994). It consists of 8 subscales measuring physical and mental health. The 36 question are distributed in 8 subscale: 1) Physical functioning include 10 items, Role physical include 4 items, Bodily pain include 2 items, General health domain

consists of 5 items, Vitality comprises of 4 items, Social functioning contain 2 items, Role emotional consists of 3 items, Mental health is tested using 5 items and Health transition domain contain 1 item. It also provides psychometrically-based physical and mental health summary measures and a preference-based health utility index (Zhou et al, 2013). Cronbach's alpha for the mental and physical component summary of the scale were calculated to be .80 and .86 (Zhou et al, 2013). The scale has been translated into more than 133 different languages including Urdu by Quality Metrics process which has its origin in International Quality of life Assessment (IQOLA) (Quality Metric, 2011). The process of translation involves experts and professional in a particular language for which translation is being developed (Quality Metric, 2011).

### Procedure

Data collection was initiated after seeking permission from the internal supervisor. A variety of places within the city of Lahore were targeted for collecting data; informed consent was taken from the participants which vividly outlined the objective of the study. The informed consent served the purpose of providing assurance to the participants that the information they will provide would be kept confidential and there are no risks involved in the research. Respondents were asked to complete all the questions honestly. A demographic sheet was given to the respondents to collect the information about the respondent, such as; name, age, marital status, and socioeconomic status etc. Then they were provided with a set of questionnaires related to the main variables under study i.e. EIS measuring ego integrity and despair, MOS SSS for measuring level of social support, and SF-36 for measuring HrQol.

### Results

In order to test the relationship between despair, ego integrity, social support and HrQol in older adults, correlational analysis was conducted, which revealed a significant positive relationship between level of ego integrity and social support ( $r(100) = 0.42, p = .01$ ) and level of ego integrity and mental health ( $r(100) = 0.44, p = .01$ ). However, correlational analysis did not reveal a significant relationship between level of ego integrity and physical health ( $p > .05$ ). Furthermore, the analysis also revealed that social support is significantly related to mental ( $r(100) = .46, p = .01$ ) but not physical ( $p > .05$ ) health. Finally there is no correlation between mental and physical component of health. See Table 1 for correlations.

A multiple regression analysis was carried out and the results revealed that the degree of social support, age, exercise, presence of

chronic illness, employment status and level of ego integrity account for 32.3% of variability in the mental health of older adults,  $F(6, 93) = 7.39, p < .05, R^2 = 0.32$ . The analysis also revealed that social support significantly predicted mental health ( $\beta = 0.31, p < .05$ ), as did ego integrity ( $\beta = .30, p < .05$ ). For details consider Table 2. Table 3 shows multiple regression analysis to find out whether the degree of social support, persons age, physical exercise, presence of chronic illness, employment status and level of ego integrity predict the physical health of older adults,  $F(6, 93) = 9.48, p < .05, R^2 = .38$ . The analysis revealed that the 38% of variation in the physical health of older adults is accounted for by the degree of social support, age, presence of any chronic illness and employment status. Demographic variable of age significantly predicted physical health ( $\beta = -0.44, p < .05$ ), as did exercise ( $\beta = -0.99, p < .05$ ), presence of chronic illness ( $\beta = -0.35, p < .05$ ) and employment status ( $\beta = -3.61, p < .05$ ) predicts physical health.

The hypothesis that social support is a significant predictor of ego integrity was testified using multiple regression analysis. It suggested that 23% of total variation in level of ego integrity was predicted by the degree of social support, age and education level. In other words we can say that the degree of social support, individuals age and level of education are good predictors of ego integrity,  $F(3, 96) = 9.63, p < .05$ . Consider Table 4 for more details.

Differences between the levels of ego integrity and mental and physical component of health related quality of life in older adults were also found out with respect to their employment status using analysis of variance (refer to Table 5). The main effect was found to be significant for all three variable i.e. ego integrity,  $F(2, 97) = 5.722, p = 0.004 < 0.05$ , mental component summary of health related quality of life,  $F(2, 97) = 3.207, p = 0.045 < 0.05$ , and physical component summary of health related quality of life,  $F(2, 97) = 4.801, p = 0.010 < 0.05$ . Analysis of Tukey HSD (as presented in Table 5)

Table 1

*Pearson Product-Moment Correlations between Ego Integrity (EI), Social Support (SS) and Physical and Mental Component of Health related Quality of Life (HrQol)*

Variables	1	2	3	4
1. Mean Ego Integrity	—	.42**	.44**	.034
2. Mean Social Support		—	0.46**	-.32
3. Mental Component of Health			—	.18
4. Physical Component of Health				—

\*\*  $p < .01$  level (2-tailed).

Table 2

*Multiple Regression Analysis of Ego Integrity (EI), Social Support (SS) and Demographic Variables as Predictors of Mental Component Summary of Health Related Quality of Life (HrQol)*

Predicting variable	B	SE B	$\beta$	t	P
Social Support	3.735	1.155	.313	3.234	.002*
Age	-.120	.152	-.073	-.788	.432
Exercise	-.254	.382	-.060	-.665	.508
Chronic Illness	-.106	.078	-.122	-1.352	.180
Employment Status	.763	1.113	.060	.686	.495
( $R = 0.56, R^2 = 0.32$ )	4.058	1.306	.299	3.108	.003*

\* $p < 0.05$ , B = Unstandardized Coefficient,  $\beta$  = Standardized Coefficient

Table 3

*Multiple Regression Analysis of Ego Integrity (EI), Social Support (SS) and Demographic Variables as Predictors of Physical Component Summary of Health Related Quality of Life (HrQol)*

Predicting variable	B	SE B	B	t	P
Social Support	-2.174	1.232	-.163	-1.764	.081
Age	-.448	.162	-.246	-2.765	.007*
Exercise	-.992	.408	-.209	-2.432	.017*
Chronic Illness	-.348	.084	-.360	-4.154	.000*
Employment Status	-3.609	1.188	-.254	-3.038	.003*
Ego Integrity	1.738	1.394	.115	1.247	.216

( $R = .61$ ,  $R^2 = .38$ )

\* $p < 0.05$ , B = Unstandardized Coefficient,  $\beta$  = Standardized Coefficient

Table 4

*Multiple Regression analysis of Social Support (SS) and Demographic Variables as Predictors of Ego Integrity (EI)*

Predicting variable	B	SE B	B	t	P
(R = 0.481, $R^2 = 0.231$ )					
Social Support	.342	.862	.390	4.257	.000*
Age	.017	.080	.143	1.588	.116
Education	.034	.011	.203	2.214	.029*

\* $p < 0.05$ , B = Unstandardized Coefficient,  $\beta$  = Standardized Coefficient

Table 5

*One-Way Analysis of Variance of Ego Integrity and Mental and Physical Component of Health Related Quality of life (HrQol) in Older Adults with Respect to Different Employment Statuses*

Variable and Source	SS	MS	F(2, 97)	P
Mean Ego Integrity				
Between Groups	4.508	2.254	5.722	.004**
Within Groups	38.214	.394		
Mental Component Summary of HrQol				
Between Groups	489.808	244.904	3.207	.045*
Within Groups	7406.579	76.356		
Physical Component Summary of HrQol				
Between Groups	884.239	442.119	4.801	.010**
Within Groups	8931.759	92.080		

\* $p < .05$ , \*\* $p < .01$

Table 6

*Multiple Comparisons Using Tukey HSD Test for Ego Integrity and Mental and Physical Component of Health Related Quality of Life (HrQol) in Older Adults with Respect to Different Employment Statuses*

Dependent Variables	Employed (1)		Unemployed (2)		Retired (3)		Post Hoc
	M	SD	M	SD	M	SD	
Ego Integrity	3.113	0.650	2.867	0.649	3.400	0.539	3 > 1 > 2
MCS of Health	43.820	8.415	41.026	8.066	46.522	10.491	3 > 1 > 2
PCS of Health	44.686	0.904	39.576	9.682	36.378	8.979	1 > 2 > 3

Note. The numbers in parentheses in the column heads refer to the numbers used for illustrating significant differences in the "Post hoc" column. MCS = Mental Component Summary of Health related Quality of life, PCS = Physical Component Summary of Health related Quality of life

revealed that there exists a significant difference between unemployed and retired group with unemployed having lower means on ego integrity ( $Mean = 2.8676$ ,  $S.D = 0.64948$ ) than retired group ( $Mean = 3.4006$ ,  $S.D = 0.53925$ ). Furthermore, when considering the dependent variable of mental component summary of health related quality of life, unemployed and retired group revealed statistically significant difference with retired group having high levels of mental health than unemployed group ( $Mean = 41.0265$ ,  $S.D = 8.06697$ ). Moreover, when Tukey HSD test for physical component of health related quality of life was analyzed, it

revealed a significant difference between employed and retired group with employed group ( $Mean = 44.69$ ,  $S.D = 9.905$ ) having higher levels of physical function than retired group ( $Mean = 36.38$ ,  $S.D = 8.9$ )

## Discussion

The results of the present research revealed a significant relationship between ego integrity, social support and mental and physical components of HrQol in older adults. Furthermore the

study identified social support and ego integrity as good predictors of the mental and physical components in HrQol in older adults. The variables under investigation can be found in several Western researches. However, these variables and their inter-relation have been severely ignored in Pakistani researches. In existing Western literature these variables have not been explored directly. For instance, existing literature does not provide evidence regarding the relationship between social support and ego integrity. Rather we have pre-existing data exploring relationship between social support and important components of ego integrity such as life satisfaction, reminiscence and life review.

Literature on association between social support and life satisfaction (Au et al, 2009; Onyishi, Okongwu & Ugwu 2012; McCormick, 1999; Edward & Lopez, 2006; Malinauskas; 2010; Onyishi, Okongwu & Ugwu 2012, Onyishi, Okongwu & Ugwu in 2012; Yeung & Fung, 2007; Young, 2006), life satisfaction and life review (Cook, 1998; Fielden, 1990) and on ego integrity and life satisfaction (Butler, 1963; Taft & Nehrke, 1990) provides us with indirect evidence on a possible relationship between social support and ego integrity. The results of current investigation are consistent with these findings and it reveals that as the level of social support increases the level of ego integrity also increases.

Analysis of researches conducted in past have indicated that components of ego integrity (such as life review and reminiscence) are potentially helpful in reducing mental illnesses, such as depression (Bohlmeijer, Smit & Cuijpers, 2003; Cook, 1991; Haber, 2003, 2006; Haight, Michel, & Hendrix, 1998; Haight et al., 2000; Watt & Cappeliez, 2000; Perrota & Meacham, 1981-82). Therefore it can be concluded that ego integrity positively contributes towards mental health. The results of the present study support these findings. Furthermore, the results from Ryff's Ego Identity Scale implied that people who score high on the scale have high levels of ego integrity, whereas people who scored low on the scale were high on despair and vice-versa.

Further evidence supporting the current findings (that an increase in social support causes a subsequent increase in mental health), is provided by the research conducted by Newson & Schulz in 1996 and Stice, Ragan & Randall in 2004. The studies found out that social support is negatively related to depression and mental and psychological problems. Hence, if social support is negatively associated with mental illness than it would be positively associated with mental health which is a fact proved by the results of present study. If we view this mechanism from theoretical point of view when a person or an individual in his late adulthood feels accepted, cared and valued by their interpersonal environment, it shores up their self-worth and self-esteem. These factors serve as a protection against mental illness or deterioration in mental health.

The results of present study support the notion that availability of proper or adequate social support can result in an increase in psychological and mental health. In addition the relationship between social support and physical health was also explored. The results of the studies conducted by Trieber et al. (1991), Horsen et al. (1999), Wang, Mittleman, & Orth-Gomér, (2005) and Unchino (2009) revealed a link between social support and physical exercise and suggested that older adults with higher levels of social support have lower rates of chronic illness. The findings also concluded that the older adults with higher levels of social support have a higher probability of ageing successfully when compared to older adults having lower levels of support. The findings of previous study contradict with the finding of present research. This research revealed a negative relationship between social support and physical

health. Inconsistencies in the findings of present research can result from a variety of factors (Unchino 2004). The reason could be culture differences. As, in the Pakistani culture, older adults who have higher levels of social support tend to become physically dependent on people providing support to them and this physical over dependence results in a subsequent decline in physical functioning.

The present research yielded interesting findings about variables which are under-explored in previous literature. An important proposition was made in this research that there would be a difference in level of ego integrity and HrQol with respect to various employment statuses in older adults. The important findings suggested that there exist a clear difference between the level of ego integrity and mental and physical health. Considering ego integrity, the retired older adults had the highest level than the employed and unemployed older adults. Taking into consideration the dependent variable of mental health, the retired group of older adults was found to have higher level of mental health than employed and unemployed group. As far as physical health is concerned, older adults who are employed are physically healthier than unemployed ones.

Additionally, the result of multiple regressions showed that social support does significantly prophesize mental health, as did ego integrity. Moreover, apart from ego integrity and social support demographic variables of age, exercise habits and employment status were the factors that significantly predict physical health.

Finally, regression analysis was also employed to find out the contribution of social support as a predictor of ego integrity. Review of the literature also provides evidence in this regard (Au, Lau, Koo, Cheung, Pan & Wong, 2009; Yeung & Fung, 2007; Onyishi, Okongwu & Ugwu 2012). The findings of present investigation are also in concordance with the existing literature.

## Conclusion

Conclusively, the study revealed that physical health is important but mental and emotional factors are more crucial when it comes to older adults. By providing adequate levels of social support to older adults we can help them to become mentally stable and effectively deal with the emotional and psychological problems they are facing. Furthermore, economic stability also has a very significant role to play in mental and physical health of elders.

## Limitations

Firstly the sample of the present research was moderate and a larger, more diversified sample could help us gain better insight into the phenomenon. Secondly, gender differences in the relation between the variables were not studied. Thirdly, the sample of the present research was obtained from an urban city; a sample from rural and traditional areas could be help make the results more generalizable and have better representation of the population under investigation.

## Future Recommendations

Within Pakistan we come across many different cultures and people. The data for the present research was collected just from different areas of Lahore, which has limit us to generalize the

results only to the older adults living in Lahore. Further studies are needed that include sample from other cities of Pakistan so that we can generalize the results on the whole population of older adults living in Pakistan. Furthermore keeping in view the results of this study different aspects of ego integrity (like life review and reminiscence) and social support (such as family counseling) could be incorporated in future interventions to increase the physical and mental health of older adults. As the relationship between social support and

Ego integrity is found to be directly positive so, in future, experimental studies could be carried out. The study can integrate family counseling, interpersonal counseling and couple counseling as an intervention to test their effectiveness on level of ego integrity on older adults.

### References

- Abu-Bader, S. H., Rogers, A., & Barusch, A. S. (2003). Predictors of life satisfaction in frail elderly. *Journal of Gerontological Social Work, 38*(3), 3-17. doi: 10.1300/J083v38n03\_02
- Alpass, F. M., & Neville, S. (2003). Loneliness, health and depression in older males. [Abstract]. *Aging & mental health, 7*(3), 212-216. doi:10.1080/1360786031000101193
- Aneshensel, C. S., & Frerichs, R. R. (1982). Stress, support, and depression: A longitudinal causal model. *Journal of Community Psychology, 10*(4), 363-376.
- Au, A., Lau, K., Koo, S., Cheung, G., Pan, P. C., & Wong, M. K. (2009). The effect of social support on depressive symptom and life satisfaction in dementia caregivers in Hong Kong. *Hong Kong Journal of Psychiatry, 19*(2), 57-64.
- Berkman, L. F., & Syme, S. L. (1979). Social networks, host resistance, and mortality: A nine-year follow-up study of Alameda County residents. *American Journal of Epidemiology, 109*(2), 186-204.
- Berkman, L. F., Glass, T., Brissette, I., & Seeman, T. E. (2000). From social integration to health: Durkheim in the new millennium. *Social Science & Medicine, 51*(6), 843-857.
- Berks. E. L., (2009). *Development through life span* (6<sup>th</sup> ed.). Boston: Pearson
- Blazer, D. G. (1982). Social support and mortality in an elderly community population. *American Journal of Epidemiology, 115*, 684-694.
- Bloom, J. R., & Spiegel, D. (1984). The relationship of two dimensions of social support to the psychological well-being and social functioning of women with advanced breast cancer. *Social Science & Medicine, 19*(8), 831-837. doi: 10.1016/0277-9536(84)90400-3
- Bohlmeijer, E., Smit, F., & Cuijpers, P. (2003). Effects of reminiscence and life review on late-life depression: A meta-analysis. *International Journal of Geriatric Psychiatry, 18*(12), 1088-1094.
- Brissette, I., Cohen, S., & Seeman, T. E. (2000). Measuring social integration and social networks. In S. Cohen, L. G. Underwood, & B. H. Gottlieb (Eds.), *Measuring and intervening in social support* (pp. 53-85). New York: Oxford University Press.
- Butler, R. N. (1963). The life review: An interpretation of reminiscence in the aged. [Abstract]. *Psychiatry, 26*, 65-76 doi: 10.1007/978-3-662-38534-0\_20
- Cassel, J. (1976). The contribution of the social environment to host resistance. *American journal of epidemiology, 104*(2), 107-123.
- Chang, S. O., Kim, J. H., Kong, E. S., Kim, C. G., Ahn, S. Y., & Cho, N. O. (2008). Exploring ego-integrity in old adults: A Q-methodology study. *International Journal of Nursing Studies, 45*(2), 246-56. doi: 10.1016/j.ijnurstu.2006.07.020
- Chao, S. Y., Liu, H. Y., Wu, C. Y., Jin, S. F., Chu, T. L., Huang, T. S., & Clark, M. J. (2006). The effects of group reminiscence therapy on depression, self-esteem, and life satisfaction of elderly nursing home residents. *Journal of Nursing Research, 14*(1), 36-45. doi: 10.1097/01.JNR.0000387560.03823.c7
- Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine, 38*(5), 300-314. doi: 10.1097/00006842-197609000-00003
- Cohen, S., & Hoberman, H. M. (1983). Positive events and social supports as buffers of life change stress. [Abstract] *Journal of Applied Social Psychology, 13*(2), 99-125. doi: 10.1111/j.1559-1816.1983.tb02325.x
- Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. M. (1985). Measuring the functional components of social support. In I. G. Sarason & B. R. Sarason (Eds.) *Social support: Theory research and application* (pp. 73-94). Netherlands: Springer.
- Cohen, S. E., & Syme, S. (1985). *Social support and health*. New York: Academic Press.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310.
- Cook, E. A. (1991). The effects of reminiscence on psychological measures of ego integrity in elderly nursing home residents. *Archives of Psychiatric Nursing, 5*(5), 292-298. doi: 10.1016/0883-9417(91)90027-3
- Cook, E. A. (1998). Effects of reminiscence on life satisfaction of elderly female nursing home residents. *Health Care for Women International, 19*, 109-118. doi: 10.1080/073993398246449
- Davis, D., & Clifton, A., (n.d.). *Psychosocial Theory: Erikson*. Retrieved from: <http://www.haverford.edu/psych/ddavis/p109g/erikson.stages.html>
- Fielden, M. (1990). Reminiscence as a therapeutic intervention with sheltered housing residents: A comparative study. *British Journal of Social Work, 20*, 21-44.
- Fleming, S. J. (2004). Erickson's psychosocial developmental Stages. In J. S. Fleming (Eds.) *Psychological Perspectives on Human Development* (pp. 9.1-9.24). Retrieved from: <http://swppr.org/Textbook/Ch%209%20Erikson.pdf>
- Frerichs, R. R., Aneshensel, C. S., Yokopenic, P. A., & Clark, V. A. (1982). Physical health and depression: An epidemiologic survey. *Preventive Medicine, 11*(6), 639-646. doi: 10.1016/0091-7435(82)90026-3
- Ghayas, S., & Batool, S. (2014). *Determinants of death anxiety and old age experience among Pakistani people* (Unpublished doctoral dissertation), Sargodha University Lahore.
- Haber, D. (2006). Life review: Implementation, theory, research, and therapy. *The International Journal of Aging and Human Development, 63*(2), 153-171. doi: 10.2190/DA9G-RHK5-N9JP-T6CC
- Hanaoka, H., & Okamura, H., (2004). Study on effects of life review activities on the quality of life of the elderly: A randomized controlled trial. *Psychotherapy and Psychosomatics, 73*(5), 302-11. doi: 10.1159/000078847
- Hearn, S. (1993). Integrity, despair and in between: Toward construct validation of Erikson's eighth stage (Doctoral dissertation, Simon Fraser University).
- Hoang, C. U. (2009). *Promoting mental health in older adults* (Doctoral dissertation, Texas Tech University).

- Jaszcz, K. K., Kloczek, M., Adamczyk, T. B., & Bulpitt, J. C., (Eds.) (2013). Health-related quality of life in cardiovascular patient. Springer: Milan. Retrieved from <http://books.google.com.pk/books?id=SwdaHOeieiOC&printsec=frontcover#v=onepage&q&f=false>
- Kim, K. B., Yun, J. H., & Sok, S. R. (2006). Effects of individual reminiscence therapy on older adults' depression, morale and quality of life. *Taehan Kanho Hakhoe Chi*, 36(5):813-20. Abstract retrieved from: <http://www.ncbi.nlm.nih.gov/pubmed/16953138#>
- Lin, N., Ensel, W. M., Simeone, R. S., & Kuo, W. (1979). Social support, stressful life events, and illness: A model and an empirical test. [Abstract]. *Journal of Health and Social Behavior*, 20(2) 108-119. doi: 10.2307/2136433
- Mahanta, D., & Aggerwal, M., (2013). Effect of perceived social support on life satisfaction of university students. *European Academic Research* 1(6), 1083-1084. Retrieved from [euacademic.org/UploadArticle/72.pdf](http://euacademic.org/UploadArticle/72.pdf)
- Matheny, K. B., Curlette, W. L., Aysan, F., Herrington, A., Gfroerer, C. A., Thompson, D., et al. (2002). Coping resources, perceived stress and life satisfaction among Turkish and American university students. *International Journal of Stress Management* 9: 81-97. doi: 10.1023/a:1014902719664
- McCormick, B. P. (1999). Contribution of social support and recreation companionship to the life satisfaction of people with persistent mental illness. *Therapeutic Recreation Journal*, 33(4), 304-319.
- Newsom, J. T., & Schulz, R. (1996). Social support as a mediator in the relation between functional status and quality of life in older adults. *Psychology and aging*, 11(1), 34. doi: 10.1037/0882-7974.11.1.34
- Onyishi, I. E., Okongwu, O. E., & Ugwu, F. O. (2012). Personality and social support as predictors of life satisfaction of Nigerian prisons officers. *European Scientific Journal*, 8(20). Retrieved from <http://www.eujournal.org/index.php/esj/article/view/325>
- Ozbay, F., Johnson, D. C., Dimoulas, E., Morgan III, C. A., Charney, D., & Southwick, S. (2007). *Social support and resilience to stress*. *Psychiatry*, 4(5), 35-40. Retrieved from [http://www.generictraumatherapy.com/uploads/4/8/5/1/4851275/\\_imp\\_social\\_support\\_and\\_resilience\\_to\\_stress.pdf](http://www.generictraumatherapy.com/uploads/4/8/5/1/4851275/_imp_social_support_and_resilience_to_stress.pdf)
- Parker, W. D. (2013). The relationship between ego integrity and death attitudes in older adults, *American Journal of Applied Psychology*, 2(1), 7-15. Doi: 10.11648/j.ajap.20130201.12
- Perrotta, P., & Meacham, J. A. (1981-82). Can a reminiscing intervention alter depression and self-esteem? [Abstract] *The International Journal of Aging and Human Development*, 14(1), 23-30. doi: 10.2190/GEY5-F684-70R3-P1A0
- Rahim, A. M., (Eds.) (2010). *Current topics in management organizational, behavior, performance, and effectiveness*. Transaction Publishers: New Jersey.
- Ryff, C. D., & Heinicke, S. G. (1983). Subjective organization of personality in adulthood and aging. *Journal of Personality and Social Psychology*, 44(4), 807. doi: 10.1037/0022-3514.44.4.807
- Sherbourne, C. D., & Stewart, A. L. (1991). The MOS social support survey. *Social Science and Medicine*. 23(6), 705-714. doi: 10.1016/0277-9536(91)90150-B
- Stice, E., Ragan, J., & Randall, P. (2004). Prospective relations between social support and depression: Differential direction of effects for parent and peer support? *Journal of Abnormal Psychology*, 113(1), 155. doi: 10.1037/0021-843X.113.1.155
- Sullivan, T. K., & Davila, J. (Eds.) (n.d.). *Support processes in intimate relationship*. New York: Oxford.
- Taft, L., & Nehrke, M. (1990). Reminiscence, life review, and ego integrity in nursing home residents. *International Journal of Aging and Human Development*, 30(3), 189-196. doi: 10.2190/X9D5-5MT3-1326-75FL
- Torges, C. M., Stewart, A. J., & Duncan, L. E. (2009). Appreciating life complexities: Assessing narrative ego integrity in late midlife. *Journal of Research in Personality*, 43(1), 66-74. doi:10.1016/j.jrp.2008.12.003
- Towey, S. (n.d.). *Social support*. Retrieved from <http://www.takingcharge.csh.umn.edu>
- Treiber, F. A., Baranowski, T., Braden, D. S., Strong, W. B., Levy, M., & Knox, W. (1991). Social support for exercise: Relationship to physical activity in young adults. *Preventive Medicine*, 20(6), 737-750. doi: 10.1016/0091-7435(91)90068-F
- Uchino, B. N. (2004). *Social support and physical health: Understanding the health consequences of relationships*. New Haven, CT: Yale University Press.
- Uchino, B. N. (2009). Understanding the links between social support and physical health: A life-span perspective with emphasis on the separability of perceived and received support. *Perspectives on Psychological Science*, 4(3), 236-255. doi: 10.1111/j.1745-6924.2009.01122.
- Wan, C. K., Jaccard, J., & Ramey, S. L. (1996). The relationship between social support and life satisfaction as a function of family structure. *Journal of Marriage and the Family* 58(2), 502-513. doi: 10.2307/353513
- Ware, J. E., & Gandek, B. (1994). The SF-36 Health survey: Development and use in mental health research and the IQOLA Project. *International Journal of Mental Health*, 23(2), 49-73.
- Ware Jr, J. E., & Sherbourne, C. D. (1992). The MOS 36-item short-form health survey (SF-36): I. Conceptual framework and item selection. *Medical care*, 473-483.
- Watt, L., & Cappeliez, P. (2000). Integrative and instrumental reminiscence therapies for depression in older adults: Intervention strategies and treatment effectiveness. *Aging & Mental Health*, 4, 166-183. doi: 10.1080/13607860050008691
- White, A. M., Philogene, G. S., Fine, L., & Sinha, S. (2009). Social support and self-reported health status of older adults in the United States. *American Journal of Public Health*, 99(10), 1872. doi:10.2105/AJPH.2008.146894
- Windle, M. (1992). A longitudinal study of stress buffering for adolescent problem behaviors. *Developmental psychology*, 28(3), 522. doi: 10.1037/0012-1649.28.3.522
- World Health Organization. (2003). *WHO Definition of Health*. Retrieved from <http://www.who.int/about/definition/en/print.html>
- World Health Organization, (2014). *Aging and Old Age*. Retrieved from <http://www.who.int/ageing/en/>
- Yeung, G. T. Y., & Fung, H. H. (2007). Social support and life satisfaction among Hong Kong Chinese older adults: Family first? [Abstract]. *European Journal of Aging*, 4, 219-227, doi: 10.1007/s10433-007-0065-1
- Young, K. W. (2006). Social support and life satisfaction. *International Journal of Psychosocial Rehabilitation*, 10(2), 155-164. Retrieved from [http://www.psychosocial.com/IJPR\\_10/Social\\_Support\\_and\\_QOL7\\_Young.html](http://www.psychosocial.com/IJPR_10/Social_Support_and_QOL7_Young.html)

Zhou, K., Zhuang, G., Zhang, H., Liang, P., Yin, J., Kou, L., You, L. (2013). Psychometrics of the short form 36 health survey version 2 (SF-36v2) and the Quality of Life Scale for Drug Addicts (QOL-DAv2. 0) in Chinese mainland patients with Methadone Maintenance Treatment. *PloS one*, 8(11), doi: 10.1371/journal.pone.0079828

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