Construction and Validation of Ego Integrity Scale for Older Adults of Pakistan

Sidra Nazir, Saba Ghayas*, Ghazal Andleb, Sidra Ishrat, Qurat ul Ain, Maria Haider, Samreena, and Zartasha Department of Psychology, University of Sargodha, Pakistan

The present study was carried out to construct and validate Ego Integrity scale for older adults of Pakistan based upon the theory of Erikson (1973) and Pecks task of ego integrity (1968). The factorial validity and internal consistency was determined on a sample of 305 late adults (male = 191, female = 114) recruited from different cities of Punjab. The scale was subjected to principal component analysis using Varimax rotation method and 15 items were retained in three well defined factor structure, which collectively accounted for 35.63% of the total variance with The three factors were named, ego .81 alpha reliability. differentiation (α =.74), ego transcendence (α =.60) and body transcendence (α =.54). Results revealed significant effect of education on ego integrity and there were not any significant gender differences in ego integrity. Convergent validity of ego integrity scale was proved by finding positive correlation with self-efficacy scale. The Scale of Ego Integrity (EI) is a promising measure with good homogeneity, internal consistency and a meaningful pattern of validity.

Keywords: Ego integrity, reliability, convergent validity, older adults

Growing older to become senior citizens and starting life as a retired person slows down the productivity of a person; however, if a person finds their life full of success and accepts negative experiences then they may develop ego integrity. Erikson (1963) describes personality as a lifelong developmental process with eight

^{*}Correspondence concerning this article should be addressed to Saba Ghayas, Department of Psychology, University of Sargodha, Pakistan. E-mail: saba.ghayas3@gmail.com

separate stages of development. The stage of Ego Integrity versus Despair is the least studied of all psychosocial stages (James & Zarrett, 2005). Therefore, the concept of this stage was the focus of this study.

Ego integrity focuses on the resolution of the cumulative stages (Coles, 1970). Positive resolutions of earlier life stages results in ego integrity. Ego Integrity is "the ability to put the past in perspective, live in the present, and not fear of the future." Negative resolution results in despair, increasing one's anxiety as one approaches death (Fishman, 1992). Majority of the research examining death attitudes among the elderly has focused on the negative outcomes. Ego integrity as a positive outcome of aging is important for promotion of hope, health, fulfillment, and vitality in the aging adult (Erikson, 1963).

Erikson's (1963) description of ego integrity includes important factors (an absence of death anxiety, tolerance and acceptance of others, and adaptability). While Erikson (1963) did not offer a formal definition of ego integrity he specified a number of features related with this construct. Without a formal definition, it is difficult to generate clear, testable hypotheses that differentiate ego integrity from other psychological constructs (Santor & Zuroff, 1994). To overcome this limitation, researchers give the description of Peck's task of ego integrity and utilize this theory in order to give a clear picture of ego integrity.

Robert Peck's Theory of Psychological Development

Peck's (1968) theory of development amplified Erikson's ego integrity in late adulthood. Ego integrity requires older adults to move beyond their life's work, their bodies, and their separate identities (Peck, 1968). Attaining ego integrity involves three distinct tasks.

"Ego differentiation vs. work-role preoccupation" - Peck (1968) described the role of work in ego development. According to

Ryff (1989) ego integrity is associated with the sense that development is a greater acceptance of role change. Erikson (1982) proposed that the individual can emotionally respond to the role change in either a positive or negative manner. Ego differentiation is when an individual, upon retirement has to form an identity independent of the workplace. This can be accommodated by exploring an individual's own potential. On the other hand workrole preoccupation is defined as a person's regret because of passing work, career and role as a parent (Peck, 1968).

"Body transcendence vs. body preoccupation" - Peck (1968) included the specific role of declining body functions and acceptance of these changes in ego development. As an individual ages, they have a lower resistance to illness, recover slower than before and have more problems with joints, backaches, etc. Body transcendence is acceptance of inevitable physical decline as a part of aging and placing more value on cognitive activities and social relationships. On the other hand, body preoccupation is focusing on bodily ailments, to use them as a constant reminder of getting older and more infirm (Peck, 1968).

"Ego transcendence vs. ego preoccupation" - According to Peck (1968) preparing in some way to go beyond physical limitations of one's lifespan and concern for well-being of human kind in general is the task of attaining ego transcendence. Ego transcendence means that older adults transcend self-concerns and accept that they will eventually die (Cook-Greuter, 2000). While the person's preoccupation with believing that little time has been left and that they are ultimately going to die is described as ego preoccupation (Peck, 1968).

According to Lowis and Raubenheimer (1997) positive correlation exists between scores on ego integrity and life satisfaction. Furthermore Erikson (1982) stated that if a person looks upon his or her life as having been meaningful and satisfying, despite the hardships, then he will be able to face the reality of death without extreme fear. In Pakistan, elderly satisfaction level was quite high, while a large number of elderly people were deprived of

basic needs (physiological, safety needs), elderly population enjoyed higher order needs (safety, love, and self-actualization) (Haq, 2012).

It is argued that the feeling of being content is the basic cause of relatively higher levels of satisfaction in life among Pakistani elderly, even in adverse conditions (Ali & Haq, 2006). In elders, both body transcendence and ego transcendence tend to increase (Brown & Lowis, 2003). Ego transcendence enables people to face death with an inner calm (Ardelt, 2008). Success in ego transcendence is measured by the degree of contentment experienced by older adults (Peck, 1968). Contentment is translated in the native language as "qanaát", a state in which a person is happy and satisfied with God about his/her life regardless of the circumstances. Older adults attach great value to religious beliefs (Peck, 1968). Religion may contribute to preparing a person for death (Fishman, 1992). The population in Pakistan is Muslim, almost 98 percent and they believe in an unlimited time perspective of life with death as merely the start of eternal life (Groningen & Haq, 2012). It is reasonable to conclude that construct of Ego integrity is prevailing in Pakistani society and needs to be studied among the Pakistani population.

Although several self-report measures of ego integrity have been developed all over the world, not even a single reliable and valid scale of ego integrity has been developed in the Pakistani cultural context. The scales which are representative of the literature are discussed as follows. Boylin, Gordon, and Nehrke (1976) Ego Integrity Scale is a 10 item scale measuring ego integrity and examines life satisfaction, regrets, achievements, and aging anxiety. This scale was originally used for male sample. This scale captures 5 items for ego integrity and 5 for despair. The Integrity Scale was adapted to the Portuguese population by Novo, Duarte-Silva, and Peralta (1997). Ego integrity was assessed by Ryff and Heincke's (1983) using a self-report method. This measure consists of 16 items. So, the present study aimed for developing and validating ego integrity scales for general population in Pakistan. The elderly

population in Pakistan is relatively understudied, and like other developing countries, research on the population above 60 years of age is mainly focused on their economic situation and health-related issues (Afzal, 1997; Afzal, 1999; Ali & Kiani, 2003; Mahmood & Nasir, 2008; Nasir & Ali, 2000).

The concept of ego integrity is complex, and attempts to conceptualize this broad term into a measurable construct can be difficult. The researcher put an effort in order to overcome these limitations regarding the measurement of ego integrity. The researcher focused on Pakistani old aged adults (50 years and above). Many researches conducted in promotion of scales for ego integrity were predominantly in English language. In Pakistani culture English is not the prime language and it was suggested that a culturally and socially consistent scale be developed. For the population of Pakistan, ego integrity scale was developed according to social and cultural context and in the targeted local language

Due to cultural differences in aging, males and females experience aging differently. Females experience a greater negative effect with aging, which shows that there are gender differences. Males have higher integrity as compared to females (Hagestad, 1994). While some researches show that there is not a significant difference amongst the genders with relevance to ego integrity. If it does exist it's because of changing social roles; nowadays women work as often as men as opposed to the past (Helm & Ginger, 2000). Hannah, Domino, Figueredo, and Hendrickson (1996) also reported that there were no meaningful differences between men and women on the prediction of ego integrity.

Results of the study by Vinis (2014) indicate there exists a significant relationship between education and ego integrity. Similarly Ghayas (2016) carried out research on 515 elderly people (aged 60 to 85). Her study revealed that ego integrity helps in decreasing the death anxiety and education significantly influence the ego integrity level among elderly people. Keeping in view the importance of the ego integrity construct, the present research was

planned to develop and validate an ego integrity scale for Pakistani old adults.

Method

Study I: Development of Ego Integrity Scale

Study I is comprised of two steps. Items of Ego Integrity scale were generated in step I and in step II selected items were factor analyzed to determine the hypothetical structure of the scale.

Step I: Generation of Items for Ego Integrity Scale.

Items were produced through the multi method approach. On the basis of the last stage of Erikson's theory (1959) and further elaboration of Peck's task of ego integrity (1968) the main themes regarding ego integrity were generated and the items were generated on these behavior items. A performa containing clear and understandable behavioral patterns of the last stage of ego integrity given by Erik Erikson (1959) and current literature were prepared. Initially 74 items were generated through multi method sourcing. These items were scrutinized through four judges and finally 55 items were selected on the basis of conformity, accuracy, redundancy and lucidity. The response format of Ego Integrity Scale was on a five point Likert type where, 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. High scores represent high level of ego integrity whereas low scores represent low level of ego integrity.

To ensure the psychometric cleansing of items, a pilot study was carried out. 30 subjects were selected through convenient sampling technique from Sargodha city and its surroundings. The age range of the sample was between 50 plus years old. Kolmogorov-Smirnov test was applied to check the normality of items, 10 items were deleted due to not fulfilling the assumptions of normality. Finally 45 items were selected for factor analysis and theoretical structure of the scale was determined.

Step II: Reliability, Factor Structure and Convergent Validity Sample

Purposive Sample of 305 subjects including both men (n = 191) and women (n=114) was taken from different cities of Punjab. Age of the sample was 50+ (M=65.3, SD=2.1). The educational level of the sample consisted of under metric (n=116), under graduate (n=129) and graduate (n=53). The sample consisted of a number of widows and widowers (n= 36; including males & females). The total sample consisted of married (n=229) and unmarried people (n=39).

Procedure

Subjects of the study were approached at different venues (homes, shops, and hospitals etc.) and the purpose of the study was briefed to them. Questionnaires were handed over to a sample of 350 subjects and they were instructed to fill up individually. They were requested to provide accurate and honest information and were also assured that the information taken from them will be kept confidential and would be used only for the purpose of the study. Maximum subjects returned the survey form on the spot while others took some time. Participants returned questionnaires by hand. Large sample was recruited in order to counter the problems of losing data, incomplete data, random responses and failure to get the form back. Subjects showed highest support and cooperation for gathering data, and 305 out of 350 (87%) forms were returned and they were found suitable for study. Some questionnaires were excluded because of random responses and incomplete data. Factor analysis was carried out after determining certain assumptions (i.e. sample size, normality, outlier detection, correlation matrix and communalities) - the criterion of factor analysis introduced by Field (2005).

Results

Exploratory factor study was assimilated to evaluate the data of 305 participants through Varimax rotation method. Through principal component analysis (PC), 3 factor solutions were attained that converged in 40 iterations by following the criterion of Kaiser (1960). Items showing high conceptual applicability and loading of

.3 or greater were reserved. All the three factors were clear, well distinct, and interpretable and theoretically stable.

Determining Psychometric Properties of Ego Integrity Scale

Construct Validity. Factor structure was obtained through Principal component analysis and 15 items were converged into three well defined factors. The content of each item of the three subscales was analyzed under the conceptual model of Ego integrity proposed by Erikson (1971). An inspection of the items related to each factor exhibited that all factors were theoretically different from each other while the other items were excluded during factor analysis because they were at the Eigen value below .3.

Factor-I (Ego differentiation). These items 16, 12, 25, 33, and 52 were loaded autonomously on factor-I and showed high loadings, .47, .53, .47, .68, and .43 respectively, typically these items represented investments to career/children being a way to find a source of self-worth for many people. This is the phenomena known as Ego differentiation.

Remaining items in the factor-I, 3, 7, 10, 14, 29, 30, 31, 39, 45, 47 and 51 were scattered and had multiple loadings. On the other hand, undefined factors and were representing other variables; moreover the content of these items was examined very carefully. Although these items had loading >.3 on factor-I but conceptually these items were not justified on factor I.

Factor-II (Body transcendence). Five items (17, 24, 37, 40 and 48) had independent loading on factor - II and displayed high (>.3) loading, .52, .45, .44, .41 and .31 respectively. Moreover all these items showed theoretical relevance with this factor and that's why all were retained in factor-II. All the retaining items in factor II emphasize overcoming physical limitations of the person in response to having compensated reward of intellectual /emotional/social adaptive skills.

Remaining items in factor-II are 1, 2, 4, 5, 8, 9, 32, 46 and 52, were examined very carefully. Although these items had loading of >.3 on factor-II but conceptually these items were not justified on factor II.

Factor-III (Ego transcendence). Items, 22, 26, 29, 46 and 54 had high >.3 independent loading on factor-III. These 5 items had respective loading of .32, .35, .47, .61 and .34. These items were retained. These items reflected facing the reality of death constructively through efforts to make life more secure, meaningful and rewarding for younger generations. So, these items were kept in factor-III with label of ego transcendence.

Remaining items in factor-III were 22, 24, 27, 28, 32, 34, 35, 36 and 51, were examined very carefully. Although these items had loading >.3 on factor-III but conceptually these items were not justified on factor III.

Table 1The Factor Loading of 15 Items on Ego Integrity Scale and on Three Factor Solution Obtained through Varimax Rotation Method (N = 305)

			Factors		
New	No of items	F1	F2	F3	Item total
no of					correlation
items					
1	16	.47			.64*** .53***
2	12	.53			.53***
3	33	.47			.50***
4	25	.68			.56***
5	52	.43			.66***
6	37		.52		.50***
7	40		.45		.42***
8	17		.44		.40***
9	48		.41		.55***
10	24		.31		.59***
11	22			.32	.43***
12	26			.35	.43*** .56***

10						8, ISHRAT, QUE A AND ZARTA	
12	20			,			
13	29				.47	.48***	
14	54				.61	.54***	
15	46				.34	.61***	
Eigen							
Value	S	10.02	1.84	1.68			
% of							
varian	ce	12.92	12.61	10.11			
Cumu	lative						

Item Analysis. Item analysis was carried out to decide the item-total correlation of EI-15 scale. The retained items indicated significant amount of correlation.

35.63

25.52

variance

12.92

Table 2Descriptive Statistics, Alpha Reliability Coefficients and Pearson Correlation among Sub Scales of Ego Integrity (EI-15) (N = 305)

Variable Variable	M	SD	α	EI	BT	ET	ED
Ego integrity	62.39	8.98	.81	_	0.81***	0.86***	0.81***
Body transcendence	20.30	3.61	.54		-	0.56***	0.47***
Ego transcendence	20.45	3.67	.60			1	0.54***
Ego differentiation	21.65	3.50	.74				-

Note: EI=Ego Integrity, BT=Body Transcendence, ET=Ego Transcendence, ED=Ego Differentiation ***p<.001

Reliability analysis was run to check the internal consistency of EI-15 and Cronbach's Alpha reliability was significant at $\alpha = .81$. Reliability coefficient ranges from 0.54 (body transcendence) to .74 (ego differentiation). These coefficients show high internal consistency, thus are reliable for use. Pearson correlation was also intended for the subscales of EI which were found to be significant.

Note: p = n.sED ET BT EI Subscales of Ego Integrity Scale (N = 305) Mean, Standard Deviation, Significance Level and t-values of Male and Female on Total and Table 3 Differentiation Variable E[= Ego 20.65 20.47 63.02 Integrity, BT= 20.90 X (n=191)Male 3.31 3.54 3.68 8.96 SD Body Transcendence, 20.22 20.12 20.03 61.35 Z (n=114)Female 3.86 3.50 8.97 SD t(303)1.57 1.03 1.65 1.26 ET=Ego Transcendence, .18 .73 .89 .75 -.40 -.31 -.42 LL 3.75 JU 1.40 1.49 1.28 0.19 0.14 0.12 0.19 Cohen's d ED= Ego

Gender differences were calculated for the total EI scale and its subscales. Results revealed non-significant gender differences in all subscales and the total scale of Ego Integrity

Table 4 Education Differences in Total Ego Integrity and Sub Scales (N=305)

Groups	SS	df	MS	F
Body Transcende	nce			
Between group	89.19	2	44.59	3.44*
Within group	3827.14	303	12.97	
Total	3916.32	305		
Ego Transcenden	ce			
Between group	87.86	2	43.93	3.30*
Within group	3922.19	303	13.30	
Total	4010.05	305	3	
Ego Differentiatio	n			
Between group	75.42	2	37.71	3.07*
Within group	3620.73	303	12.27	
Total	3696.15	305		
Ego Integrity				
Between group	748.30	2	374.15	4.71**
Within group	23441.67	303	79.46	
Total	24189.97	305		

^{*}p<.05, **p<.01, ***p<.001

Results indicated significant differences among three educational groups on total body transcendence scores. The results were found to be significant at F (3, 303) = 3.44, p < .05. The results are found to be significant at F (3, 303) = 3.07, p < .05. Results indicated significant differences among three educational groups on total ego transcendence scores and ego integrity scores. The results were found to be significant at F (2, 303) = 4.71, p < .01. Results indicated significant differences among three educational groups on total ego differentiation scores. The results were found to be significant at F (3, 303) = 3.30, p < .05.

*p<.05, **p<.01, ***p<.001 Differentiation Note: ET BT ED E Variable Education Based Differences in Total Ego Integrity and its Sub Scales (N=305) Table 5 EI= Ego graduate and above graduate and above graduate and above under graduate under matric under graduate under matric under graduate under matric under graduate under matric Graduate and above (I) Educational Integrity, BT= Body Transcendence, ET=Ego under matric graduate and above under graduate graduate and above graduate and above under matric under matric graduate and above under graduate under graduate under graduate Under matric (J) Education 1.43 -.24 -1.02-.95 -1.05 -2.87** 3.88** MD (I-J Transcendence, .60 .46 1.45 1.14 SE 1.48 ED= Ego .350 .713 .036 .062 .035.046 .024 .485 .012 .009 .671 ď

Table 5 shows significant differences in ego integrity and its sub scales between the three educational levels, graduate and above, undergraduate and under matric. The results indicate the mean and standard deviation as follows: graduate and above on ego integrity scale (M = 64.26, SD = 7.04), under graduate (M = 63.25,

SD =8.33) on ego transcendence, under graduate (M =20.95, SD =3.10) in ego differentiation, graduate and above (M =22.19, SD =2.70) on ego differentiation, under graduate (M =20.65, SD =3.49) in body transcendence, graduate (M =20.87, SD =2.56) in body transcendence and graduate (M =20.20, SD =3.05) on ego transcendence.

Study II: Convergent Validity of Ego Integrity Scale (EI-15)

Study II was an independent study planned to determine convergent validity of ego integrity scale (EI-15). Convergent validity of Ego Integrity Scale (EI-15) was established by measuring its correlation with the Urdu translated 10 item version of Self-efficacy Scale (Tabbasum, Rehman, Schwarzer, & Jerusalem, 2003).

Sample

The sample of 60 old age persons including both men and women, ranging in age from 50-85 years (M=61.19, SD=1.94) was recruited from Sargodha and other cities, and data was gathered through convenient sampling technique after taking informed consent from the subjects.

Measures

- Newly developed Ego integrity Scale (EI-15).
- Ten-item General Self Efficacy Scale (GSE) (Schwarzer & Jerusalem, 1995) was used to measure self-efficacy. Alpha reliability of the scale was $\alpha = .81$. Responses were on a 4-point scale.

Procedure

Measures of Ego Integrity Scale (EI-15), and General Self Efficacy Scale (GSE) were administered on 60 old age participants from Sargodha and others cities. Data was gathered individually from each subject. Subjects were taught to fill the questionnaires and were requested not to skip any question.

Table 6Correlations of Total Ego Integrity Scale and Subscales with the Self-Efficacy (N = 60)

Seij-Ejjicacy ($IV - OO$)					
Variable	1	2	3	4	5
1- Ego integrity	-	0.81***	0.86***	0.81***	0.28*
2- Body transcendence		-	0.56***	0.47***	.408**
3- Ego transcendence			-	0.54***	0.22
4- Ego differentiation				-	0.07
5- Self-efficacy					-

Note: EI=Ego Integrity, BT=Body Transcendence, ET=Ego Transcendence, ED=Ego Differentiation *p<.05, **p<.01, ***p<.001

Results of the Pearson correlation showed that ego integrity Scale positively and significantly correlates with self-efficacy scale (r = .28, p < .05) and its subscale body transcendence (r = .41, p < .01), whereas its positive correlation with ego transcendence subscale was not significant.

Discussion

The present study was aimed to develop an indigenous trait based self-report ego integrity scale. Erikson's theory (1963) and Peck's task of ego integrity (1968) provided the theoretical foundation for generating items for the scale. Peck's task (1968) provides a well-defined multidimensional model of ego integrity and moreover it is the only well-established model that encompasses all core features of the construct. Thus the present study aimed to develop a reliable and valid scale of ego integrity based upon specifically indigenous culture of Pakistan; with the aim of understanding individuals' level of positive aging and contribution to society.

In order to establish factor structure of ego integrity scale, principal component analysis was carried out upon 45 items. Exploratory factor analysis was incorporated to assess the data of 305 participants through Varimax rotation method. Items showing high conceptual relevance and loading of .3 or greater were retained. The content of each item of the three subscales was analyzed under the conceptual model of ego integrity proposed by Peck's task of ego integrity (1968). An inspection of the items related to each factor exhibited that all factors were theoretically different from each other. The first factor measures the sources of self-worth other than the work/career or role as parents so it was named Ego Differentiation. Items in the second factor reflected the emphasis of facing inevitable physical decline and placing more value on cognitive activities and social relationships. This factor was named Body Transcendence. The items in the third factor reflected the emphasis on facing the reality of death constructively through efforts to make life more secure, meaningful and rewarding. These items were labelled Ego Transcendence. All three factors were clear. well defined, interpretable and theoretically consistent.

Reliability analysis was carried out in order to check the internal consistency of the scale and subscales. The results of this study show significant reliability for the 15 items of ego integrity at α =.81. The reliability coefficient for three subscales is as follows: Ego Differentiation α =.74, Ego Transcendence α =.60 and Body transcendence α =.54. The total correlation of items was also examined to see which items significantly and positively correlated with the total EI-15. There was significant positive correlation between the scale and subscales.

The result of this study shows non-significant gender difference on ego integrity. Hagestad (1994) identified how aging and gender interact on three levels. The results of this study reflect that gender roles do not originate in the old age and nor do they effect the old age only. The results of present study are also confirmed by the results of the research that was conducted on older adults to find out the gender differences in ego integrity and need of

control (Helm & Ginger, 2000). According to researchers now a days women also do jobs or work and they are satisfied in terms of relationship and success and it could be same for men so not significant gender differences found (Helm & Ginger, 2000). While Hannah, Domino, Figueredo, and Hendrickson (1996) also reported that there were no meaningful differences between men and women on the prediction of ego integrity. While supported by the previous researches that if gender differences are found these are because of social roles (Helm & Ginger, 2000). The results of this research also reflect non-significant gender differences.

The results of this study indicate significant impact of education on an individual's ego integrity formation. The higher the level of education the higher the person scored on ego integrity. The existing literature indicates significant relationship between ego integrity and level of education. The results of the study by Vinis (2014) indicate significant relationship between education and the ego integrity. These results are in line with the study conducted on Pakistani elderly population and revealed that education significantly influence the ego integrity of elderly people (Ghayas, 2016).

Level of education also has great impact on a person's level of integrity. Higher education leads to enhance the person's integrity. Improvement in education lead to improvement in health among the elderly and modifying the negative consequences of population aging (Kye, Arenas, Teruel, & Rubalcava, 2014). Earlier studies found that the well-educated enjoy better health and survival chances in later life than do the less educated (e.g., Cutler & Lleras-Muney 2008; Elo & Preston 1996). Therefore, there is an impact of education on a person's ego integrity.

In an independent study, convergent validity is determined by measuring correlation between the translated measures of selfefficacy scale and ego integrity. The ego integrity subscale of Body Transcendence has significant positive correlation with selfefficacy. The results of the present research are confirmed by the existing literature. The elderly have accumulated a lifetime of selfknowledge leading to more complex and secure conception of themselves as compared to earlier stages of life (Labouvie-Vief & Diehl, 1999). Furthermore, when young and older adults were asked for several life-defining memories, 65 to 85 year olds were more likely to mention events with a consistent theme such as the importance of relationships or personal independence, and to explain how the events were interrelated (McLean, 2008). Self efficacy beliefs may play a foundational role in an individual's ability to adapt to changes and to maintain the necessary resources for successful aging in biological, psychological, and social domains (Timberlake, 2011). The present study supported the previous researches and found positive relationship between ego integrity and self-efficacy therefore establishing convergent validity of the newly formed scale.

The scale developed in this study was culturally relevant. The validity and reliability of the scale was highly significant. The convergent validity of the scale was accessed and found to be significant. The relationship of ego integrity was discussed in reference to different demographic variables like education and gender as well.

Limitations and Suggestions

The sample size of the study was not very large therefore it is suggested that future researchers should collect data from large sample and the sample should be representative of multiple areas of Pakistan. All the demographic variables should be considered. Future research could incorporate the role of health level, religious involvement and levels of spirituality of a person on ego integrity development.

References

Afzal, M. (1997). Population ageing issues in Pakistan: A further analysis, some problems and issues of older persons in Asia and Pacific. New York: United Nations. (ESCAP Asian Population Studies No. 144).

- Afzal, M. (1999). Growing old in Pakistan: Challenges for the new millennium; international year of older persons UNFPA.
- Ali, S. M., & Haq, R. (2006). Women's autonomy and happiness: The case of Pakistan. *The Pakistan Development Review*, 45(1), 121-136.
- Ali, S. M., & Kiani, M. F. K. (2003). Ageing and poverty in Pakistan. Pakistan Institute of Development Economics.
- Ardelt, M. (2008). Self-development through selflessness: The paradoxical process of growing wiser. In H. A. Wayment & J. J. Bauer (Eds.), *Transcending self-interest: Psychological explorations of the quiet ego* (221-233). Washington, D.C.: American Psychological Association.
- Boylin, W., Gordon, S. K., & Nehrke, M. F. (1976). Reminiscing and ego integrity in institutionalized elderly males. *Gerontologist*, 6(2), 118-124.
- Brown, C., & Lowis, M. J. (2003). Psychosocial development in elderly: An investigation into Erikson's ninth stage. *Journal of Aging Studies*, 17, 415-426.
- Coles, R. (1970). *Erik H. Erikson: The growth of his work*. Boston: Little Brown.
- Cook-Greuter, S. (2000). Mature ego development: A gateway to ego transcendence? *Journal of Adult Development*, 7(4), 227-240.
- Cutler, D., & Lleras-Muney, A. (2008). Education and health: evaluating theories and evidence. In Schoeni, R.F., House, J.S., Kaplan, G.A., and Pollack, H. (Eds.), *Making Americans healthier*. New York: Russell Sage Foundation.
- Elo, I. T., & Preston, S. H. (1996). Educational differentials in motality: United States, 1979-85. *Social Science and Medicine*, 42(1), 47-57.
- Erikson, E. H. (1959). *Identity and the life cycle*. New York: International Universities Press.
- Erikson, E. H. (1963). *Childhood and society* (2nd ed.). New York: Norton.
- Erikson, E. H. (1971). Childhood and society. New York: Norton.
- Erikson, E. H. (1973). Growth and crisis. *Theories of Psychopathology and Personality*, 136-156.

- Erikson, E. H. (1982). *The life cycle completed*. New York: W.W. Norton.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). London: Sage Publications Ltd.
- Fishman, S. (1992). Relationships among an older adult's life review, ego integrity, and death anxiety. *International Psychogeriatrics*, 4(4), 267-277.
- Ghayas, S. (2016). Experiencing old age and determinants of death anxiety among older adults. (PhD Dissertation). Department of Psychology, GCU Lahore, Pakistan.
- Groningen, R., & Haq, R. (2012). Subjective well being of the elderly in Islamabad, Pakistan. Published dissertation.
- Hagestad, G. O. (1994). The social meanings of age for men and women. In M. R. Stevenson (Ed.), *Gender roles through the life span: A multidisciplinary perspective*. Ball State University.
- Hannah, M. T., Domino, G., Figueredo, A. J., & Hendrickson, R. (1996). The prediction of ego integrity in older persons. *Educational and Psychological Measurement*, 56, 930–950.
- Haq, R. (2012). Subjective well-being of the elderly in Islamabad, Pakistan (Doctoral dissertation). University Library Groningen.
- Helm, G., & Ginger, H. (2000). Gender differences of the older adult in relationship to ego integrity and the need for control. Electronic theses and dissertations, East Tennessee State University.
- James, J. B., & Zarrett, N. (2005). Ego integrity in the lives of older women: A follow-up of Mothers from the Sears, Maccoby, and Levin (1951) Patterns of child rearing study. *Journal of Adult Development*, 12(4), 155-167.
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, 20, 141-151.
- Kye, B., Arenas, E., Teruel, G., & Rubalcava, L. (2014). Education, elderly health, and differential population aging in South Korea: A demographic approach. *Demographic Research*, 30(26), 753-794.

- Labouvie-Vief, G., & Diehl, M. (1999). Self and personality development. In J. C. Cavanaugh & S. K. Whitbourne (Eds.), *Gerontology: An interdisciplinary perspective* (pp. 238-268). New York: Oxford University Press.
- Lowis, M. J. & Raubenheimer, J. R. (1997). Ego integrity and life satisfaction in retired males. *Counseling Psychology in Africa*, *2*, 12-23.
- Mahmood, N., & Nasir, Z. M. (2008). Pension and social security schemes in Pakistan: Some policy options (No. 22211). East Asian Bureau of Economic Research.
- McLean, A. (2008). Old Age in a New Age: The Promise of Transformative Nursing Homes, by Beth Baker. *Medical Anthropology Quarterly*, 22(2), 195-197.
- Nasir, Z. M., & Ali, S. M. (2000). Labour market participation of the elderly. *The Pakistan Development Review*, 39(4), 1075-1086.
- Novo, R. F., Duarte-Silva, M. E., & Peralta, E. (1997). The Psychological Well-Being: An exploratory study for the Portuguese adaptation of the C. Ryff scales. Comunicação (Poster). 4th European Conference on Psychological Assessment. Lisboa: Faculdade de Psicologia e de Ciências da Educação da Universidade de Lisboa, Setembro de 1997.
- Peck, R. C. (1968). Psychological development in the second half. In Bernic. L. Neugarten (Ed.), *Middle age and aging a reader in social psychology* (pp. 88-92). Chicago: University of Chicago Press.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069.
- Ryff, C. D., & Heincke, S.G. (1983). Subjective organization of personality in adulthood and aging. *Journal of Personality and Social Psychology*, 44(4), 807-816.
- Santor, D. A., & Zuroff, D.C., (1994). Depressive symptoms: Effects of negative affectivity and accepting the past. *Journal of Personality Assessment*, 63(2), 294-312.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.),

- Measures in health psychology: A user's portfolio. Causal and control beliefs (pp. 35-37). Windsor, UK: NFER-NELSON.
- Tabassum, U., Rehman, G., Schwarzer, R., & Jerusalem, M. (2003). *Urdu adaptation of the general self-efficacy scale*. Retrieved from http://userpage.fu-berlin.de/~health/urdu.htm.
- Timberlake, J. (2011). *The role of self efficacy in the quality of life of older adults*. Retrieved from http:// www. academia. Edu /download/31090361/The _role_ of_ self_ efficacy_in_older _adult_QoL.pdf
- Vinis, M. S. (2014). A study to assess the level of ego integrity among female geriatric population in selected geographical areas at Indore city (M.P.). Scholars Journal of Applied Medical Sciences, 2(1), 54-56.