

L..I

\_..,- DEVELOPMENT AND VALIDATION OF HEALTHY EXPERIENCE OF AGEING

TOOL FOR PAKISTANI OLDER ADULTS

ORIGINAL ARTICLE

# ZAHIDA ILYAS', SARAH SHAHED'

'PhD Scholar, Department of Applied Psychology, Lahore College for Women University, Jail Road, Lahore. Pakistan

'Professor of Applied Psychology and HOD of Gender and Development Studies Department, Lahore College for Women University, Jail Road, Lahore, Pakistan

**CORRESPONDENCE: ZAHi DA ILYAS,** E-mail: [drzahidal987@gmail.com](mailto:drzahidal987@gmail.com)

Submitted: January 30, 2018

Accepted: April 04, 2018

# ABSTRACT

**OBJECTIVE**

To develop an indigenous tool to measure the healthy experience of aging in Pakistani older adults

# PLACE AND DURATION OF THE STUDY

The study was conducted in four cities of Punjab

province; Lahore, Mandi Baha Uddin, Khaniwal, and Islamabad during September 2016 to April 2017.

**SUBIECTS ANDMETHOD**

Four hundred male and female participants having

age range of 60 years and above were included. Participants of the study completed newly developed tool that consisted of 30 items. Data collected from four cities of Punjab province; Lahore, Mandi Baha Uddin, Khaniwal, and Islamabad were used for the purpose of factorial validityof tool.

# RESULTS

Four factors were revealed i.e., Physical health,

Psychological health, Social engagement and Ego Integrity. Reliability analysis of all sub-variables revealed an overall satisfactory Cronbach alpha (0.84). Convergent validity was estimated by correlating the HEAT scores with there on Perceived Well-Being Scale-Revised by Reker, G T (1995), r=c.744\*\*, p<0.001. Discriminant validity was assessed by correlating the scores on

Perceived Stress Seate by Cohen et al. (1988} with HEAT (N *=*100). An inverse relationship was found

betweenbothmeasures r=·.354\*,p<0.05.

# CONCLUSION

This tool is reliable for assessing the healthy experience of aging in Pakistani cultural context.

# KEYWORDS

Health, Physical health, Psychological health, SocialEngagement,EgoIntegrity

# INTRODUCTION

Ageingis an inherently significantlife experience, which**is**generally considered as

a process of wisdom and Intelligence in Pakistani society. Ageing is increasingly visible in all around the world. In developing countries, the number of young people is on the decrease where the number of the elderly is on the increase. An

estimated percentage suggests that there will be almost 43 million people (it would be 15.8 percent of Pakistan's total population ) over the age of 60 in this country by 2050,as compared with 11.6 million of older people *(65* % of the total population)at present'.

Pakistan demographic profile (2015) suggests age structure of Pakistani older adultsas55-64yearsare5.1%(male5,008,681and female 5,041.434) while65years and over are 4.3% (mate 3,951,190 and female 4,490,045). Dependency ratio of olderpeopleis7.1%andpotentialsupportratio14.2in Pakistan'.

Health Canada defines healthy aging as "a lifelong process of optimizing opportunities for improving and preserving healthandphysical, socialand mental wellness, independence, quality of life and enhancing successful life-course transitions"'. Healthy aging includes all aspects such as religious, physical, social, psychological, spirituality and well-being for old adults. This may indicate progressively more positive perception on older people's health and their well­ beingstatus.Howeverhealthyaging piaysanimportant rolein old age'.

Good aging depends upon how the older adults analyze their aging process and how they experience theiraging.Research findings haverevealed that olderadults withpositive ageattitudes tendto demonstrate alowercardiovascularreaction to stress. These older adults tend to be connected in healthier activities in life'. Another research findingshowsthat older adultsshowmorepositivity in life events and accept positive aspects of life because they have spent a long life in which manytimestheyperceivednegative eventsaschallenges'.

Agingcancomewith amultiplicity of healthchallenges in our culture.However,we can takea number of actions to maintain and enhance goodhealth and decrease the risk of illness and disability. Different scales and toolshave been developed to maintain and promote healthy aging in the developed countries. A scale was developed and authenticates to measure the multidimensional nature of incentives to involve in healthy activities and behaviors practices among older peoplein the USA. Healthy AgingIncentives scale thathad20itemswasdeveloped by usinga sampleof 158respondents who had participated to measuretheirhealth and wellness. Five themes were revealed by factor analysis that contributes to healthy aging practices: Locus of control, socialization attributes, psychological well-being, social functions, and health and fitness. Research finding was drawn that show literature support for this tool and the significant determinants for advancing healthy outcomes for USA'spopu.lation'.

*JULY- SEPTEMBER 2018* I *VOLUME 15 NUMBER 3 PAGE 13*



I IJrr.al **fr** 1,--\_ 1 r-:vrl I ' I ***c,***

Active aging plays an important and vital role in enhancing good quality of life for older people, but it is alittle-explored area in caseof Asian older persons. One of the earlier attempts in this regard has been the development of Active aging scale for Thai adults which consisted of 36-items and has seven factors of active aging such as being independent, active participation in social activities, development of spirituality and wisdom, ensuring financial security, maintaining a healthy lifestyle,keepingin touch withactive learning, and increasing family tiestomakesurecareand respectin laterlife'.

Astudy wasconducted in South Korea to identify how healthy aging wasinnuenced by psychosocial factorsand to investigate theirsocio­ demographic distinctiveness. Findings indicated that Perceived health status, participation in spare time activities, self-esteem, depression, self-achievement, ego-integrity, and isolation were closelyassociated withhealthy aging'.

A scale developed by Ko (2009) for Healthy Aging is used for assessing healthy agingfactors.Thescale consists of 20 items on a5- point Liken-rating scale. This scale assesses primarily three special health-related factors: physical, social and cognitive-mental health. The scores ranged between 20 and 100, obtaining higher scores on scale indicate the significantly higher level in the development of healthy aging'0.

There are no such kinds of tools available in Pakistan to measure aging-related issues and problems, however, in 2015 a tool was developed and validated on General Adjustment to Aging in Pakistan;in thisstudy 200participants wereusedas asample for the establishment of factorial validity.Malesand femalesolderadultsage of 60-90 years old belonging from two cities Lahore and Islamabad were included. Factor analysis revealed four themes i.e., cognitive and emotional adjustment, attitude towards friends, attitude towards family and psychological adjustment. These study findings signified that adjustment levelof olderadultsin Pakistani population is not in pleasant condition". The basic purpose of this study is to develop an indigenous tool to measure healthyexperience of aging in Pakistaniolderadults

# SUBJECTS AND METHODS

This study involves a mixed method and multi-phases approach. It consistsof the development of an indigenous toolfor measuring the healthy experience of agingin olderadultsin Pakistan.Multiplesteps were used to develop the healthy experience of aging scale also referredasHEATin the following sections.TheHEATis developedasa comprehensive,culturally sensitive tool forolder adults in Pakistan. Thescaledevelopment took placeIn the following phases:

## Phase I: Developmentof Indigenous Tool

***Step*** *I.* ***Identifying the phenomenology* of *Healthy Experience* of *Ageing:*** Thefirst stepinvolves literature review for

identifying indicators of healthyaging,problemsof health and well­ being of older adults and correlates of healthy behaviors. A focus group with ten older adults was also conducted to identify further culturally meaningful domains of healthy aging.TI1ese people were encouraged to talk about their lifestyles and how they are trying to adjust to their aging successfully. Open-ended questions were included in interviews which wererelated to physical, psychological

and social aspects of aging. The qualitative analyses yielded some special domainsof healthy experience of aging.Combiningthe input from literature review with findings of the focus group provided a comprehensive and inclusive insight into healthy aging domainsand facilitated the development of closed-ended items for the proposed scale.

***Step*** *II.* ***Interviews with practicing psychologists:*** Two psychologists having professional experience of 4 to 5 years were interviewed. The purpose of the interview was items generation of healthy experience of aging in Pakistan. They reported their experience of the factors, findings, and problems they had observed in older people during their professional experience and how these peopletried to live ahealthy lifein theirexisting socialsetup.

***Step*** *Ill.* After the literature review, interviews with older people and psychologists,alistof60itemswasprepared asthe initial pool.

***Step IV.*** The items were scrutinized for their content. Some items were added and some rephrased whereas overlapping items were deleted. The sustaining 50 items were reviewed by a panel of six experts specializing in fields relevant to the study, two clinical psychologists,two psychiatristsand two health psychologists.

Theexperts endorsed eachitem on a scale basedon relevance to the construct and clarity, ranging from 1 (not relevant) to 4 (highly relevant). In addition, the experts wereasked to evaluate the clarity and appropriateness of the closed-ended items of HEAT by using "yes" or "no" responses to each item. They were also invited to suggest revised wordings for any items that seemed ambiguous, unclear, or inappropriate. The items rated at levels 3 or 4 were retained, whereas those rated at levels one or two by three or more experts were deleted or modified according to the experts' suggestions.Twentyitems were deletedas theyreceivedless than20

% endorsement. These items were 2,3, 7,9,5,13, 15,16,19, 21,25,28,

30,32, 36, 37, 42, 47,52,and 50. The final list of items for HEAT scale consisted of30items.AS pointLikert scale from 1(strongly agree=S) to 5 (strongly disagree=1) wasadopted.

***Step V.*** To check clarity and ease of understanding, the items of HEAT were used for pilot-testing in two locations Islamabad and Lahore with apurposive sample of 30 older adults withagerange60 years and above. Older people were instructed to fill the scale's statements and report if they found any statement unclear. After taking informed consent, the participants were given HEAT scale, data were analyzed. Participants reported the 30 items clear and understandableso theseitems wereretained.0.84 Cronbach's alpha of thistoolwascalculated.

## Participants

Factor analysis was done on a purposive sample of four hundred older adults. Factors *were* studied thoroughly and labeled after presenting to subject matter experts. Construct validity of a testcan assess through factor analysis. The purpose of factor analysis is to assess the construct validity of a test or a number of tests (Kahn, 2006)".

Four hundred participants (220 males and 180 females) from four cities of Pakistan (Mandi Baha Uddin, Khaniwal, Islamabad and





Lahore) were selected. Participants coming from diverse socioeconomic backgrounds, educational levels, family compositions, professions and marital statuses were included. Their ages rangedfrom60 years and above(M=c65.1, SD=-5.4). This sample wasselected fromdifferent community groups,old agehomes,parks where generally these people go for morning and evening walk as wellasretiredolderpeoplelivingin their homes.Information related to demographicvariablesissummarized in Tablel.

Table I

Demograpbfo lnfom1a1ion of Participan1s

|  |  |  |
| --- | --- | --- |
| **Variables** | **,.--400** | % |
| **Gender** | | |
| Male | 220 | 55% |
| Female | 180 | 45% |
| **Age Range** | | |
| 60-70 years | 354 | 90% |
| 11-80 years | 37 | 09% |
| 81 and above years | 09 | Ol% |
| **Marital Statuses** | | |
| Unmarried | 15 | 3.8% |
| Married | 341 | 85.2% |
| Divorced | 02 | 0.5% |
| Widow | 22 | *5.5%* |
| Widower | 20 | 05% |
| **Education vel** | | |
| Primary | 41 | 10.3% |
| Middle | 37 | 09.2% |
| Me1ric | 86 | 21.5% |
| Intermediate | 70 | **17.5%,** |
| Graduation | 74 | 18.5% |
| Mas1ers | 92 | 23% |
| **Family Composition** | | |
| Nuclear | 154 | 38.5% |
| Joint | 246 | 61.5% |

**Procedure**

Healthy Experience of Ageing Tool (HEAT) was administered individually to each participant after taking informed consent.In all datacollection as wellasanalysis processes privacy wasassured and maintained.Data wereanalyzedby usingSPSS.

# RESULTS

In order to assessthe factorial validity and psychometric propertiesof the scale factor analysis were run. lnterpretability of the factors *was*

maximized through Varimax rotation". Bartlett's test of sphericity was significant (p =.001), indicating that the data were adequately distributed to allow an evaluation of the potential factor structure. The condition of the distribution of participants' responses was evaluated through Bartlett's test of sphericity ll, The Kaiser-Meyer­

Olkin measure of sampling adequacy value was .837. According to Kaiser (1974), items which have less than .3 communalities value should removefromlistofitems".

Factor 1, 2, 3 and 4 consisted Eigenvalues 6.5, 3.1, 1.8, and 1.5 respectively. However, four factors model with 50.3% of total variancewasobservedin detailandacknowledged.Itemsfor the tool werechosenon the principle of having at least communality value of

.3 and more". In this study, 4 items which have less than 0.3 values

were eliminated from the tool andfinal list of26items was prepared. Factor loadingsln below-labeled factors arepresented In Table No 2.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Faclor Loadings** | | | | | | |
| I **2 3** | | | | | **4** | " |
| **No.or**  **ltl'ms** | **Social**  **Engag.ement** | Psychol c•I  **Ae11tb** | | **P yslcal**  **Hnllll** | **E20**  integril)' | **Common.allties** |
| I |  | .3i0 | | 571 |  | *Ai<>* |
| 2 |  | .301 | | .733 |  | *.(,33* |
| 3 |  | .376 | | .598 |  | 501 |
| 4 |  | .336 | | .6l3 |  | .501 |
| *5* |  | .358 | | ,658 |  | ,468 |
| 6 |  | .596 | |  |  | .438 |
| 7 |  | .531 | |  |  | 401 |
| 8 |  | ,623 | |  |  | .436 |
| 9 |  | .570 | |  |  | .408 |
| 10 | .471 | *.536* | |  |  | .397 |
| II | 682 |  | |  |  | .519 |
| 13 | .701 |  | |  |  | .532 |
| 15 | 634 |  | |  |  | .450 |
| 16 | ,592 |  | | .392 |  | ,512 |
| 20 | .671 |  | | .471 |  | ,534 |
| 21 | *.5(,5* |  | |  |  | .499 |
| 22 | .513 |  | |  |  | .425 |
| 23 | .532 |  | | .376 |  | .434 |
| 24 | .600 |  | |  |  | .511 |
| **25** | .823 |  | |  |  | .449 |
| 26 | .824 |  | |  |  | .728 |
| 27 | .821 |  | |  |  | .713 |
| 28 |  |  | |  |  | .677 |
| 30 | *.455* |  | |  | .528 | .509 |
| 31 | **.462** |  | |  | .510 | .476 |
| 32 | .345 |  | |  | .566 | 473 |
| **EigenvaluH** | | | 6.5 | 3.1 | 1.8 | 1.5 |
| **Variance** | | | 25.3% | 12.00% | 7.2% | 5.8% |
| **Cumulaih·e Pcrctmtag** | | | 25.3¾ | 37.3% | 44.5% | **S0.3%** |

Healthy Experience of Aging Tool (HEAT) with 26-items was



I IJrr.al **fr** 1,--\_ 1 r-:vrl I ' I -h

established. Thescale HEAT measures factors related to the healthy experience of aging in older adults(M=65.1,SD=S.4). A 5 pointLikert scale was established for older adult participants, 5 represents strongly agree and l represents stronglydisagreeabouttheirhealthy aging experience. Cronbach alpha was calculated for 26 items to estimate internal consistency. Items of the tool have total estimate

0.84 {p < .01). This estimate indicates that items of this tool are homogeneous and uniformed.

To check the convergent validity Healthy Experience of Aging Tool waspositively correlated withPerceived Well-Being Scale-Revised by Reker G Tand Wong (1995).'6 It consisted of 16 items and 7 points Likert type scale. A sample of 100 older adults with age range between60andaboveyears (M*=* 64.7,SO=4.83) participated in the present study.Satisfactory positive correlation coefficient was found between Healthy Experience of Ageing scale and Perceived Well­ Beingscale,r=c.744\*\*,n=cl 00,p<0.001.

Tofindoutthediscriminant validity HealthyExperience of AgingTool and Perceived Stress Scale *by*Cohenetal.(1988) werecorrelated". A sample of 100 older adults' wastakenaspart of the study.It consisted

of 10-items. Asample of 100olderadults withage rangebetween60 and above years {M *=*64.7., SD ==4.83) participated in the present

study. Weak negative correlation was found between the Healthy experience of Aging scale and perceived stress scale. r= -.354•, n= 100,p<0.05.

### DISCUSSION

This study attempted to highlight the importance of developing a culturally relevant measure of healthy experience of aging within Pakistani context as an alternative to importing standardized western instruments that maynot be relevant to eastern cultures. The healthy experience of aging scale for Pakistani older adults is a culiurally sensitive however beneficial instrument. The items of this indigenous tool are significantly correlated with a general aged populationof Pakistan.

This study aimed to identify as well as explore out the meaning of healthy aging from the perspective of Pakistani older people who had experienced healthy aging in their agingjourney and how their experience can contribute to general population's perception of aging.

According to a beautiful saying "Getting old is mandatory, feeling old isoptional•. Aging issucha personal/ individual experience that only those people can share or express their personal experiences regarding their old age journey who can reach this specific stage of life.Many factors, aspects can be same,common,but each individual has his or her own unique experience. According to a research finding aging development is not a different stage but the continuous process of older adult's life.Theolder people remain the sameindividuals{s)as they alwayshasbeen".

On the other hand in our country Pakistan there is a need to formulate new andImproved socialand remedial programs for older peoplethat canhelp them to feelease and comfortIn their daily lives and can make them able to live ahealthy life.Such kind of programs should also offer caregivers learning and education, guidance and

facilities to their family members in the matter of caring their older parents, grandparents and other extended relatives who need social and moral support. Such kind of need was also suggested and highlighted in astudydonethroughasurvey in localcommunities''. A significant correlation between Healthy Experience of the Aging tool andPerceived Well-being establish the convergent validity. A positive correlation withPerceived well-being doesnot minimize the importance of validating or developing new and advance indigenoustoolswith culturalvariation and according to the need of society. The negative relationship between HEAT scores and PSS$ scores established the discriminant validity. This tool would be helpful to study different aspects of healthy experiences of aging in Pakistan.

### LIMITATIONS AND SUGClSTIONS

This tool development would help to minimized language-based cultural biases in Pakistan. This research would be helpful as well as enhance the importance of future studies associated with aging problemsand health iSSLJes ofolder people.Further scales/toolscan be developed on the basis of findings and validation of this newly developed scale. It would be helpful to seek the attention of government and non-governmental organizations to promote programs and conduct seminars regarding awareness of aging­ related issues and healthy aging management strategies and to prevent the tendency of loneliness and promote respect and participation of older adults within the existing society and community. This tooldevelopment would be helpful to explore and identify healthy aging-related factors and aging-related problems and issues faced by older adults in Pakistan. Sample bias can be considered as only four cities were included. The sample was only taken from urban areas of Punjab. Thesample can be selected from urbanandruralpopu.lationrespectively.

### CONCLUSION

This study endeavored to intensify the healthy experience of aging factors by reviewing empirical researches and resulting in thisscale. Thisscaledevelopment wouldbehelpfulIn futureresearchers for the promotion of older adults' healthy living styles and introducing interventions, policies specifically related to medical health and socialadjustmentof the older adultsin Pakistan.

## REFERENCES

1. Ali SM. Pakistan's aging population. Journal of express tribune.2012 Retrieved from <http://tribune.com.pk/story/> 464108/pakistans-aging-population/.
2. Pakistan Demographic Profile. 2015. Retrieved from: [http://www.](http://www/) theodora. com/wfbcurrent pakistan/ pakistan\_people.html.
3. HealthCanada.Division of Aging and Seniors. Dareto Age Well: Workshop on healthy aging.Partl: Aging and HealthPractices. Worksand Government Services.2002.Canada.
4. Hansen-Kyle L. A concept analysis of healthy aging. Journal of Nurs Forum 2005;40(2):45-57. doi:10.1111/j.1744- 6198.2005.00009.x.
5. Levy B R.MindMatters: Cognitive and Physical Effects of Aging



Journal of Pakistan Psvch1atrrc Soc,etv

Self-Stereotypes". Journal of Gerontology: Psychological Sciences.2003;58: 203-211.

1. Joshua CM , Bethany AT.Distress and Recurrence of intrusive thoughts in younger and older adults. Journal of psychological aging.2013,doi: 10.1037/a0024249
2. Aday RH, WallaceJ B. Development and Validation of the

Healthy Aging Incentives Scale. Journal of educational gerontology. 2015; 41 (12):847 -858 .doi10. 1080 /0360

1277.2015,1059137.

1. Thanakwang K , Sang-arun, Hatthakit U I. Development and psychometric testlngthe active aging scale for Thai adults. Journal of ciinical interventions in aging.2014. doi: 10.2147/CIA.566069
2. Hun K, Lee Y,Gu J, Hee 0, JongHee m Kim.Health Quality Life Outcomes.2015;13:31.doi: 10.1186/sl 2955-015-0225-5.
3. Ko D5. Development of the scale for healthy aging. Journal of KoreanGerontologySoc. 2009;29(1):17-34.
4. llyas Z, Muazzam A.Development and validation of a general

adjustment to agingscale in Pakistan. Journal of Arts and Social Science.2015;2(2):81-96.

1. Kahn J H.factor analysis in counseling psychology research, training, and practice principles. advances, and applications. TheCounseling Psychologist.2006; 34(5):684-718.
2. Bartlett M S.A note on the multiplying factors for various chi­ square approximations. Journal of Royal Statistical Society.1954:16: 296-298.
3. Kaiser HF. An index of factorial simplicity. Psychometrlka. 1974; (39):31-36.
4. Raubenheirner .An Item Selection Procedure to Maximise Scale

Reliability and Validity.journal of industrial psychology. 2004;30(4):59-64.

1. Reker, GT. Reliability and Validity of the Perceived Well-Being Scale-Revised (PW8-R). Peterborough, ON: Student Psychologists Press.1995
2. CohenS,Karnarck T, Mermelstein R.A global measure of perceived Stress. Journal of Health and Social Behavior. 1983;(24):386-396.
3. Silva, Maria D ,Borner, Magali R.The experience of aging: A

Phenomenological perspective. Journal of Revista Latino­ Americana de Enferrnagem.2009;17(3):380-386.

1. Baig L,Hasan Z, llyas M. Are the elderly in Pakistan getting their

due share in healthservices? Results from asurvey done in the peri-urban communitiesof Karachi.Journal of Pakistan Medical Association.2000;50(6):192-196.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr.# | Aulhor Name | Afflllallon of Aulhor | Conlrlbullon | Sl!lnalure |
| 1 | **Zahida**llyas | PhDScholar InApplied Psyco!ogy Oepactment LCWU. | AcqUisition ofparticipant, Ma. analyses,int<rp<.Ulion ol Illedata, drallingofb'leaftlcle. cnlical appraisal of flodings wllhlnorarure **search. wri1e upandrewstonot**  **lho**manuscrtpt, | *),,)'*Jr |
| **2** | **Or. Sarah Shahid** | Assocla!Bd Proressot Olstltuleor Applloo Psyclv.>logy | Conceptionofresearchidea. **Supc1Yision of theresearch.** Crilic appraisalol data. wrile-up olmanuscript. final  1orma1and appro<al of vernlon  topublished. |  |