



RESEARCH PAPER

**Translation and Validation of Lasher and Faulkender Anxiety
about Aging Scale (AAS) among Pakistani Adults**

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ABSTRACT

This study aimed to validate the Lasher and Faulkender Anxiety about Aging Scale (AAS) among 312 Pakistani adults aged 35 to 65. Data was collected from Khyber Pukhtoonkhwa and Punjab. Covariance-based Structural Equation Modeling (CB-SEM) in Amos confirmed factorial validity, with all items having standardized regression loadings exceeding 0.60. Construct reliability, assessed through a composite reliability index, surpassed criteria in each factor and overall AAS. Discriminant validity, evaluated using Average Variance Extracted (AVE), was satisfactory. The Urdu version demonstrated strong internal consistency (Anxiety about Aging overall = .93, Fear of Aging = .86, Fear of Physical Changes = .87, Fear of Loss = .86, Fear of the Elderly = .85). Significant correlations with subjective happiness, depression, anxiety, and stress supported convergent and divergent validity. Overall, the Urdu AAS is a psychometrically sound and reliable tool for measuring anxiety about aging in the Pakistani context.

Keywords: Aging, Anxiety, Attitudes toward Aging, Factorial Analysis, Validation

Introduction

In recent years, technological and scientific advancements have resulted in a worldwide demographic shift marked through an elderly populace. This rise in longevity has sparked concern in finding the bodily as well as psychosocial elements that influence improved ageing adjustment (Fernández-Jiménez et al., 2021). Aging is a normal part of life and a stage of human development. Individuals' physiological, psychological, and social characteristics alter during this process. Diet, environment, personal behaviors, and hereditary variables all have an impact on the severity and breadth of the ageing process (Mortazavi et al., 2014).

Aging anxiety is distinct from typical anxiety in the way that aging anxiety implies to our fears and concerns about the ageing process, which is firmly identified with impairment, illness, and dependency (Lynch, 2000; Watkins et al., 1998). Anxiety about ageing stems from anxieties and concerns regarding being older and reflects an individual's anxiety of potential hazards and shortfalls that may occur as one ages (Watkins et al., 1998). According to studies, ageing anxiety is an important element that influences people's attitudes and behaviors toward the old. Aging anxiety has also been linked to negative stereotypes about the elderly and ageing and these negative attitudes have led to discrimination and social exclusion (Ayalon & Tesch-Römer, 2017; Boswell, 2012; Donizzetti, 2019; Meisner, 2012; Ramírez et al., 2018; Taşdemir, 2020), which has been shown to have an impact on elderly people's health (Meisner, 2011). Increased ageing anxiety can lead to a greater fear of death and a lower positive hopeful outlook on life (Barnett & Adams, 2018). Despite this, the scope

and consequences of ageing anxiety are inadequately known (Lasher &Faulkender, 1993; Lynch, 2000).

“Aging anxiety refers to the negative emotions and worries that come with getting older, such as physical, psychological, social, and spiritual losses” (Lasher &Faulkender, 1993). Deviations in well-being and purposeful capacities, such as being diagnosed with a disease or being unable to attend to personal care such as bathing, are among the fears associated with physical losses; however, anxiety about physical changes also includes shifts in sexuality and outward appearance, such as hair loss or wrinkles(Lasher &Faulkender, 1993).

Lasher and Faulkender (1993) identified four factors that establish the overall characteristics of the anxiety about aging.The first factor are identified as *Fear of Old People*. This element begins to evaluate interpersonal connection. The items on this component, unlike the other three, would not relate directly to apprehension about one's own age. However, a person who interacts with anxiousness about ageing through reaction formation or denial, for instance, may show discomfort on this component while denying or hiding anxiety on the other, more straightforward, causes. The second factor is *Psychological Concerns*which is far more subjective or private in nature. All of the items are specifically correlated to them all handle essential psychological tasks that must be addressed in order to achieve a successful transition in old age, which Erikson theorized psychosocial conflict of "integrity versus despair". Poor contact quality was associated with higher anxiety on this subscale, while sex, age, or contact volume had no effect on this component. The third factor is regarded as *Physical Appearance*. This factor has to do with anxiety about how one's physical appearance changes as one gets older. This relatively specific issue has a lot of face validity and appears to be an important factor in a multidimensional understanding of ageing concern. This was the only element that had a significant relationship with age. Quantity of touch was connected to physical appearance, however not with sexual activity or quality of contact. The fourth and last factor is *Fear of Loss*.This element triggers anxiety associated with having something ripped away or lost as one grows older. As a result, it is far more focused on the outside world than the Psychological Concerns element. Friendships, physical health, decision-making capacity, social respect, and life meaning are all addressed in this aspect. The influence of loss on elderly people has remained repetitively underlined in the literature, and it appears that this element plays a significant role in determining anxiety about ageing (Lasher &Faulkender, 1993).

Thus, Aging anxiety research is crucial since fear and anxiety about ageing are linked to undesirable outcomes such as shorter life span and circulatory complications, implying that ageing anxiety has a detrimental impact on one's health and happiness (Brunton & Scott, 2015). The progressive rise in the old population may have an impact on how people perceive ageing and the ageing process. Aging is unavoidable, and due to the numerous changes, it brings, old age can be viewed as a period of anxiety for the individual. Aging anxiety is a serious problem that can be influenced by a variety of factors in an older adult's life; also, attitudes of ageing and ageing anxiety vary among cultures, economies, and social settings (Löckenhoff et al., 2009).

Therefore, a valid and accurate test is needed to explore ageing anxiety and potential factors that contribute to it, particularly among the elderly. Several tools have been created to assess anxiety related to or caused by ageing. Personal Experience of Aging (Steverink et al., 2001), Attitude-Aging-Visual Analogue Scales (Ligon et al., 2014), Reactions to Aging Questionnaire (Gething, 1994), Personal Anxiety toward Aging (Kafer et al., 1980) and the Anxiety about Aging Scale (AAS) (Lasher &Faulkender, 1993).

The majority of measures used to assess ageing anxiety are unidimensional, with small item factor loadings (Klusmann et al., 2020). However, because concrete diagnoses of ageing anxiety involve numerous components, multi-dimensional scales may be a useful

tool. Furthermore, one-dimensional scales have limits in their ability to discriminate different levels of anxiety in older persons. Lasher's Anxiety about Aging Measure (AAS) is a well-known and widely used multi-dimensional scale for assessing anxiety about ageing. Lasher and Faulkender devised this scale (1993). AAS is the most extensively used and appropriate tool to assess fear of ageing among the instruments described (Fernández-Jiménez et al., 2020).

Most of the aging population in Pakistan unable to understand English .Since Lasher's AAS or similar tools have not been translated and evaluated psychometrically in Pakistani context, For the following reasons, a psychometric evaluation and translation of this tool is required: (1) self - report instruments are suitable for evaluating the anxiety of elderly individuals; (2) to evaluate the variables that impact age - related fear among elderly persons; (3) to investigate the influence of age and gender patterns on ageing anxiety throughout the lifespan among elderly individuals; and (4) to evaluate the convergent validity of the AAS. Thus, the current study sought to determine the translation and validation of the Anxiety about Aging Scale among oldPakistani population.

Material and Methods

Sample

The present literature used correlational research design .The data was collected by using purposive sampling technique in a period of one month. Men and women age range is 35 – 65 years from both areas of residence (i.e., Rural , Urban) and two-family systems (i.e., nuclear and joint) were included in the present research.Individuals with any psychological, medical or physical disability,any chronic condition/s and the pregnant women were excluded from the study.Demographic information was collected to assess the characteristics of the sample.

Thirty participants were recruited initially for pilot study. Then a sample of N= 312 Pakistani adults was selected from Khyber Pakhtunkhwa for present study. Sixty-nine (22.1%) respondents were between the age ranges of 35-45 years, 132 (42.3%) were between 46-55 years, and 111 (35.6%) were between 56-65 years. In terms of gender, 161 (51.6%) were male and 151 (48.4%) participants were female. From education perspective, 50 (16%) participants were under matric, 81 (26%) were matriculated, 42 (13.5%) had intermediate (12 years) education, 65 (20.8%) were 14-year graduated, 41 (13.1%) were16-year graduated, 30 (09.6%) participants were having master level (18 years) education and only 3 (01%) were PhD or above. One hundred twenty-five (40.1%) respondents were from rural area and 187 (59.9%) were from urban area. One hundred sixty-six (53.2%) respondents were from nuclear family system and 146 (46.8%) were from joint family system.

Measures

Lasher and Faulkender Anxiety about Aging Scale (AAS) comprises of 4 sub - scales which thus represent the actual features of ageing anxiety. The AAS is a 20-item questionnaire that generates a cumulative score based on response to all 20 questions. The scale had good internal consistency ranging from 0.69 to 0.82. It uses a 5-point Likert scale, with items ranging from 1 (strongly disagree) to 5 (Strongly agree). A higher score means you're more worried about getting older (Lasher &Faulkender, 1993).

Subjective Happiness Scale is a 4-item instrument that was used to establish the divergent validity. It was developed by Lyubomirsky and Lepper (1999). Responses are measured using a seven-point Likert scale. High scores indicate the high levels of happiness. The tool's reliability is ranged from 0.79 to 0.94 (Lyubomirsky & Lepper, 1999).

Depression Anxiety Stress Scale-21 (DASS21) was created by Lovibond and Lovibond (1995). It was used to establish convergent validity. Cronbach's alpha for this scale is varied between 0.74 and 0.93 (Ali & Green, 2019; Kyriazos et al., 2018). It has three subscales i.e., Anxiety, Depression and Stress. Each subscale consists of seven items, with severity ratings for the week before to the interview ranging from 0 (did not apply to me at all) to 3 (applied to me very lot, or most of the time) (Lovibond & Lovibond, 1995).

Procedure of Translation

The research was conducted to translate and validate the English version of Lasher and Faulkender Anxiety about Aging Scale into Urdu language. Author of instrument was approached for the permission to use and translate the scale in current study. After the data collection, different statistical tests were administered through SPSS 24.0 and AMOS 24.0 on the data according to the objective and hypotheses of the study. Descriptive statistics was used to know about the demographic characteristics of the participants. Reliability analysis was used on different stages in order to test the reliability of the scale. Pearson Moment Correlation Analysis was used to examine the correlation among factors of the scale and to analyze the linguistic equivalence of original English and translated Urdu version of the scale. Correlation analysis was also utilized to investigate the test re-test reliability of Urdu version. Confirmatory Factor Analysis was employed to measure construct validity.

The translation and validation of Lasher and Faulkender Anxiety about Aging Scale was carried out in two phases, first phase was about the translation of the scale and the pilot study. In the second phase, alpha reliability, convergent and divergent validity was established.

In first phase, three multilingual English, Urdu and psychology specialist translated the scale from English to Urdu by using MAPI guidelines. Standard translation guidelines were used for translation. After initial translation, a pilot study was undertaken to see if all of the items were easily understandable and acceptable. Consequently, participants discovered no issues with any of the items, so they were all kept in the final version. In second phase focused on establishing the internal consistency and factorial validity of the scale. Further, in this phase, the linguistic equivalence and cross validation between original English and translated Urdu version of both Lasher and Faulkender Anxiety about Aging Scale at selected sample was also confirmed.

Results and Discussion

Lasher and Faulkender Anxiety about Aging Scale (AAS; Lasher & Faulkender, 1993) is validated in this study following the CFA method with the sample of 312 respondents. The CFA analysis was done using CB-SEM through Amos to confirm the factorial validity of AAS.

Table 1
Fit Model Indices of AAS for the Initial Model with 4 factors, Model fit of 4 factors and Second Order model.

| Model | χ^2 | χ^2/df | CFI | TLI | RMSEA | SRMR |
|--|----------|-------------|-----|-----|-------|------|
| Initial model (Four factors) | 504.03 | 3.07 | .89 | .86 | .09 | .07 |
| Modified four factor model (model fit) | 406.98 | 2.51 | .93 | .92 | .07 | .05 |
| Second order model (model fit) | 407.9 | 2.49 | .93 | .92 | .06 | .05 |

Note. The values of chi square of all changes were noted according relative to the model, $\chi^2 > .05$, Comparative Fit Index = CFI, Tucker Lewis index = TLI, Root Mean Square Error of Approximation = RMSEA, Standardized Root Mean Square = SRMR.

The fit indices of model for translated Urdu version of AAS presented in Table 1. The scores for the four factor fit indices model showed a way of good fit to recognized model for

the data given. The fit model is examined in one key-step. The values of absolute and relative and fit were measured (i.e., CFI, TLI, & RMSEA). As the chi-square test of absolute model fit is significant for quantity of parameters as well as for sample size, scholars most of time turn to many descriptive fit measurements to ensure the complete fit a model for data. Although, Hu and Bentler (1999) recommended that χ^2/df for model fit should be in 1 to 3, SRMR as well as RMSEA for model fit should be .08 or less, whereas CFI and TLI for model fit should be of 0.90 or higher are recommended as a good, while $0.90 \leq 0.80$ is suggested acceptable. Therefore, the values of RMSEA, SRMR, CFI and TLI are acceptable.

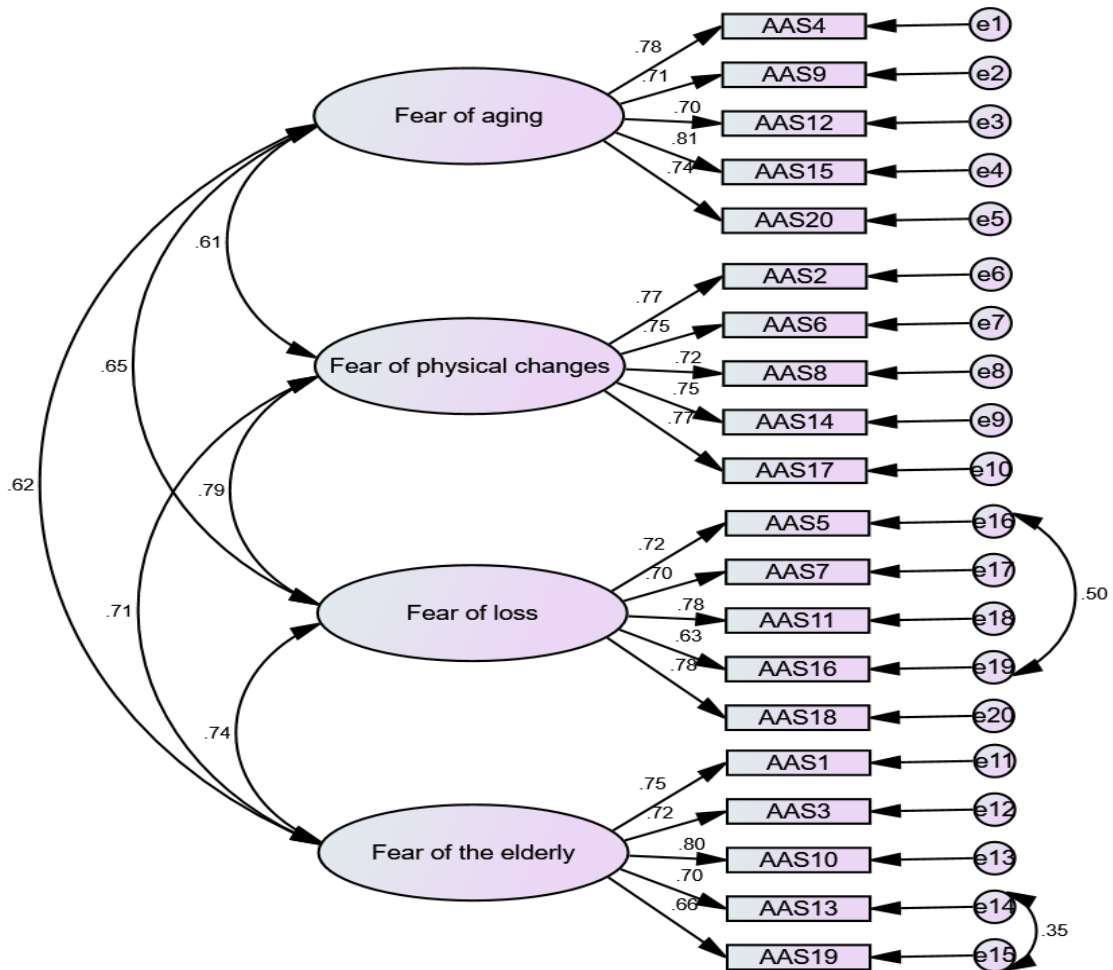


Figure 1 Regression Loadings (Standardized) of Four Factors CFA after Added Covariance

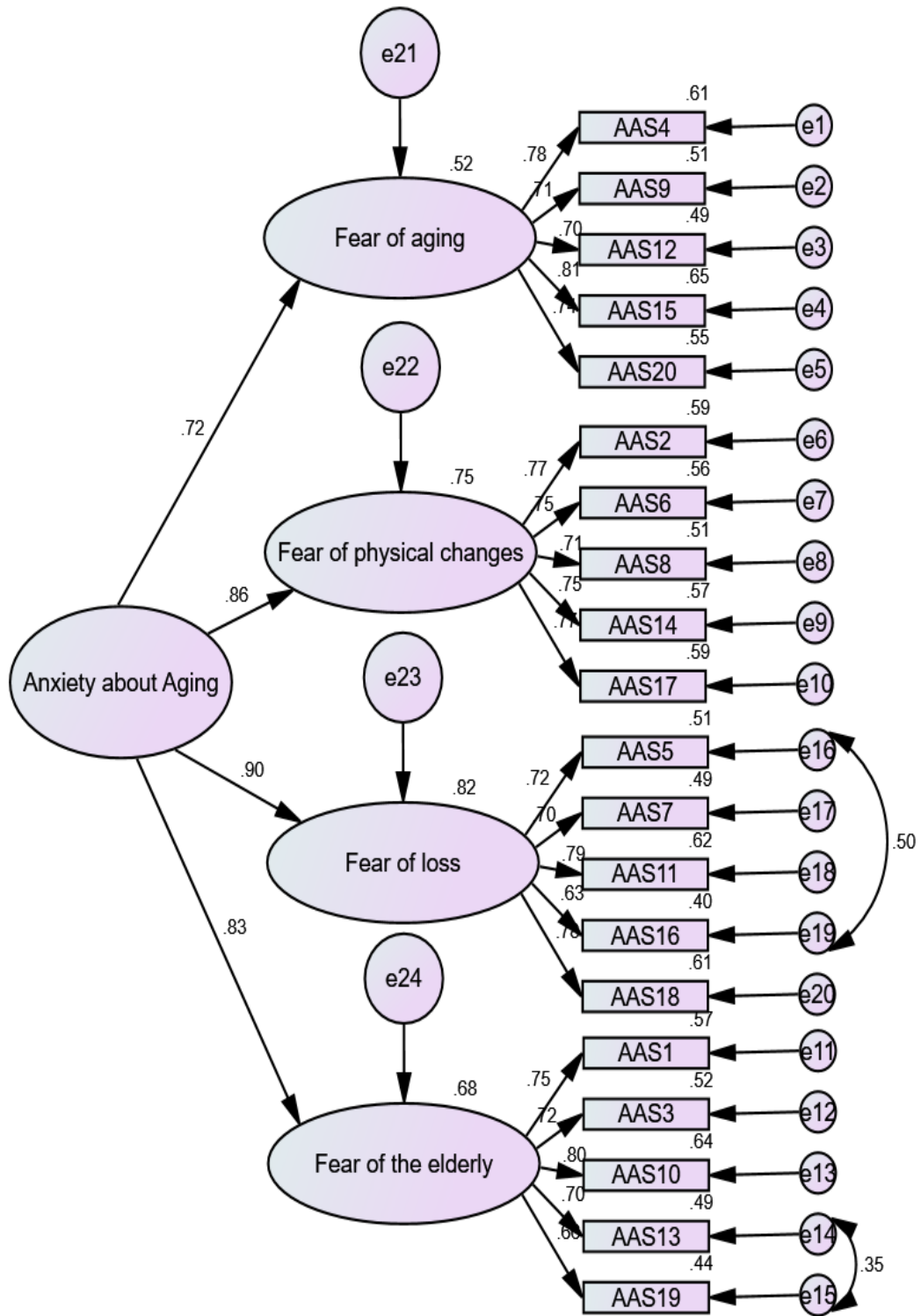


Figure 2 Regression Loadings (Standardized) of Second Order CFA

Table 2
Standardized Regression Loadings and R² of the Factors

| Factors | Loadings | R ² |
|--------------------------|----------|----------------|
| Fear of Aging | .72 | .52 |
| Fear of Physical Changes | .86 | .68 |
| Fear of Loss | .90 | .75 |
| Fear of the Elderly | .83 | .52 |

The Table 2 presented the regression loadings (standardized) for the second order of Urdu version AAS. The results showed that that all factors of AAS have attained the mandatory level and further no required any item deletion and modification. The results revealed that anxiety about aging loads very well on its four factors. Furthermore, the R^2 for all factors are high, which reveal the contribution of Anxiety about Aging on its four factors is good. In other word, the Anxiety about Aging consists of four factors is very well supported. The result also showed that the Anxiety about Aging (overall) significantly predict on all factors.

Convergent and Divergent Validity

The Table 3 present the correlation analysis to ensure the convergent and divergent validity of AAS. For convergent validity, the Depression, Anxiety and Stress Scale is considered and for divergent validity, the Subjective Happiness Scale is considered.

Table 3

Bivariate Correlation among Anxiety about Aging, Subjective Happiness, Depression, Anxiety and Stress

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|----------------------------------|--------|--------|--------|--------|--------|--------|-------|-------|---|
| 1. Anxiety about Aging (Overall) | - | | | | | | | | |
| 2. Fear of Aging | .78** | - | | | | | | | |
| 3. Fear of Physical Changes | .85** | .54** | - | | | | | | |
| 4. Fear of Loss | .85** | .53** | .66** | - | | | | | |
| 5. Fear of the Elderly | .82** | .51** | .60** | .59** | - | | | | |
| 6. Subjective Happiness | -.39** | -.34** | -.31** | -.33** | -.30** | - | | | |
| 7. Depression | .48** | .35** | .39** | .38** | .44** | -.36** | - | | |
| 8. Anxiety | .56** | .44** | .46** | .43** | .49** | -.38** | .74** | - | |
| 9. Stress | .51** | .42** | .43** | .40** | .42** | -.31** | .70** | .73** | - |

** $p < .001$

The results of Table 3 indicated that anxiety about aging (overall) has significant positive correlation with all of its factors, depression, anxiety and stress, while it has significant but negative correlation with subjective happiness. Similarly, all the factors of AAS have significant positive correlation with each other and with the subscales of DASS (i.e., depression, anxiety and stress. However, all the factors have significant but negative correlation with subjective happiness. The significant association of anxiety about aging overall with all factors with subjective happiness, depression, anxiety and stress support convergent and divergent validity for Urdu translated AAS.

Discussion

The translation and validation of Anxiety about Aging Scale (AAS) among Pakistani adults were the goal of the current study. During factor analysis, the original four factors that emerged were Fear of aging, Fear of physical changes, Fear of loss, and Fear of elderly. On the items whose chi-square change was four or more, covariance was introduced. Following that, the absolute and relative fit indices were once again computed, and sufficient values were discovered for model fit. The standardized regression loadings of all items exceeded 0.70 except item 6 and item 12 which showed values above 0.60 that support the factorial validity of translated Urdu version of AAS. In order to verify the construct reliability and discriminant validity, measurements of the composite reliability (CR) and average variance extracted (AVE) were also taken.

Bagozzi and Yi (1988) recommended the criteria for acceptance of CR should be 0.70 and above. In this study, AAS showed the CR overhead the criteria in each factor and overall

AAS. Due to the components' strong correlation and poor discriminant validity, AVE was not surpassed in any comparisons for any combinations of the shared variance. The AVE values were larger than the suggested level of 0.50 (Hair et al., 2012). To deal with the discriminant validity issue a second/ higher order confirmatory factor analysis was employed (Hair, 2010). The results revealed that anxiety about aging loads very well on its four factors. The factor loading of Fear of Aging, Fear of Physical Changes, Fear of Loss and Fear of the Elderly are 0.72, 0.86, 0.90 and 0.83 respectively. The R^2 for all factors were high which explains that the Anxiety about Aging consists of four factors was very well supported.

The Urdu Version of AAS with four factors showed the good range of Cronbach's alpha. Findings indicated that anxiety about aging (overall) has significant positive correlation with depression, anxiety, and negatively related with subjective happiness. The significant association of anxiety about aging overall with all factors with subjective happiness, depression, anxiety and stress support convergent and divergent validity for Urdu translated AAS.

These findings were consistent with those from the original scale (Lasher & Faulkender, 1993) and several investigations that employed the same tool ("Anxiety about Ageing and Related Factors in Japan", 2018; Aydin & Kabasakal, 2021; Dina & Minhata, 2021; Dollinger, 2001; Fernández-Jiménez et al., 2020; Lasher & Faulkender, 1993; Oh & Park, 2022; Pakpour et al., 2021; Slevac & Tiggemann, 2010).

Conclusion

In conclusion, the Anxiety about Aging Scale in Urdu showed strong findings that complemented the foundational theoretical model and had excellent internal consistency and validity. It will be interesting to see how age-related anxiety is used in the future given that age-related anxiety is linked to the attitudes we can develop toward the elderly and very old, ageist attitudes, and attitudes that, as Serrani-Azcurra (2012) concludes, "that negative ageist attitudes contribute to remove the feeling of fear referred to their future old age".

Recommendations

To start, the fact that all participants were adults between the ages of 35 and 65. Secondly, because it is a self-report tool, social desirability bias might have an impact. The sample selection approach, which is the third limitation, increases the possibility of statistical bias in the results since it is not probabilistic. The fourth limitation is that the sample was taken only from the Khyber Pakhtunkhwa threatens the generalizability of the findings in Pakistani context.

In view of the limitations of the study, some recommendations are being proposed. This type of research can be conducted on a large scale. Extending the research to adults of all age groups, as well as to other regions (a nationwide study might be conducted) is an area of opportunity for future studies. Future research should investigate the variables influencing the fear of ageing in Pakistani adults as population-based treatments are required to lessen ageing anxiety. It is recommended that researchers examine demographic variables in future studies since various factors can impact fear of ageing in other cultures.

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