

## **Development and Validation of Engagement Aging Scale for Older Adults**

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The disengagement theory of aging (Cumming & Henry, 1961) proposes that as people grow older, their social interactions and involvement in society are reduced and this results in a gradual disengagement from roles and relationships. The present research argues that all older adults are not disengaged rather some of them remain engaged in their roles either willingly or forcefully. However, there is no instrument for measuring their engagement, therefore, the present research developed and validated a measure of engagement of older adults in their roles and responsibilities in two studies. In study 1, items of the Engagement Aging Scale (EAS) were developed while keeping in view the disengagement theory (Cumming & Henry, 1961) and findings of interviews and focus group discussions. The exploratory factor analysis of the EAS in a purposive sample of 200 occupationally retired older adults suggested two factors of engagement namely forced engagement and engagement by choice. In Study 2, a confirmatory factor analysis of EAS confirmed its factor structure in a purposive sample of 500 older adults. The results showed that higher levels of forced engagement were associated with increased depression, while higher levels of engagement by choice were linked to lower depression. Neither of the engagement subscales showed a significant relationship with the assimilation identity style,

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demonstrating the convergent and discriminant validity of the measures, respectively. These findings suggest that the EAS is a reliable and valid measure of engagement that could be used in future research to explore the nomological network of engagement among the elderly.

*Keywords.* Engagement by choice, forced engagement, depression, assimilation

The stable world population and the reduced growth rate have resulted in a shift towards aging societies, particularly in industrialized nations. The growing number of older individuals presents a challenge in meeting their needs in fields such as medicine, social science, and biology (Healy et al., 2011). Currently, 11% of the world's population is made up of people over 65 years of age, and by 2050 this number is estimated to rise to 22%. Pakistan is among the top six countries facing the issue of aging, along with other nations (Ashiq & Asad, 2017). In 2050, it is estimated that Pakistan will have more aged people than children less than 15 years (Alam et al., 2016).

### **Theoretical Background**

The phenomenon of growing old is known as aging. The aging process depicts a set of noticeable physical, psychological, and intellectual changes over time (Atwood & Bowen, 2011). Plenty of literature in the western culture highlighted the challenges faced by older adults to stay attached to individuals, who, most of the time considered them burdensome, incompetent, and unproductive members of society (Macnicol et al., 2005). Successful aging is a multidimensional construct and it involves the absence of any illness and disability, high physical capacity and intellectual ability, and continuous engagement in social gatherings and activities (Strawbridge et al., 2002). Successful aging incorporates three fundamental dimensions, low likelihood of illness and disease-related disability, high physical abilities and mental capabilities, and active and dynamic engagement in life. The term successful aging describes a person being physically, psychologically, and socially fit in the latter part of life (Fries, 2003). This concept of successful aging stands in a way of prejudice that is attached to the idea of growing old with its many negative evaluations and assumptions.

Old age is a great time to sit back and enjoy life. Older people are much wiser, people's opinions do not easily fluster them, and they are much more comfortable with their schemas and concepts. The challenges of aging are well-known, encompassing physical,

cognitive, and social losses. Understandably, both individuals and societies have fears associated with aging, such as loss and increased costs and burdens. Many people experience significant cognitive decline as they age, including physical limitations and psychological issues such as depression, loneliness, anxiety, and other psychosocial issues. These individuals fall into the category of unsuccessful aging. The challenges of aging, however, are only part of the picture. The other side includes growth, vivacity, drive, and satisfaction (Shugarman et al., 2003). Successful aging involves the maintenance of physical functioning and good mental health that may lead to generativity, improved quality of life, and social connectedness in old age. The key indicators of successful aging are involvement in different physical and social leisure activities, participation in occupational and domestic responsibilities, and contribution to several household tasks with their will: Resulting in positive mental health outcomes. However, the indicators of unsuccessful aging suggest that older adults are asked vigorously to involve in numerous domestic, and occupational deeds despite their poor health conditions, and old age may increase the older adult's chances of experiencing negative mental health outcomes compared to successful agers.

### **Disengagement Theory**

Disengagement theory was the first theory of aging developed by social scientists and one of the vital theories out of the many theories of aging related to engagement and disengagement. The disengagement theory of aging proposes that it is normal and acceptable for older adults to withdraw themselves from society and social connections as they grow old. Cumming and Henry (1961) proposed nine postulates to clarify why it is logical for those who thought that demise is drawing nearer and their age companions have started to suspect their deaths and disengagements (Cumming, 1963). Disengagement theory summarizes that it is the process of removing oneself from all social and occupational life when the person becomes aged and ends up noticeably old. The theory assumes that, in old age, elderly individuals withdraw themselves from social connections and quit occupational roles and responsibilities that were essential in their previous life (Deci & Ryan, 2008).

One of the important limitations of the disengagement theory is that it does not focus on the process of engagement among older adults even though engagement could be an as important indicator of (un) successful aging as disengagement is. It has been commonly observed that some older adults may remain busy in shouldering their

responsibilities and do not transfer them to the younger ones throughout their lives irrespective of age, gender, health conditions, and SES. They remain engaged in different social, occupational, and domestic deeds as they believe that they have the potential to fulfill responsibilities even in old age (Kim, 2008). On the other hand, some older adults are involved in their liabilities and social/occupational boundaries involuntarily because of familial and societal pressure (Hazer & Ozsungur, 2017).

Based on the common observations and the pertinent literature, we propose two manifestations of the engagement process i.e. forced engagement and engagement by choice. Sometimes older adults are forced to be engaged in different household and occupational tasks without any reverence for their old age and compromising health, such older adults may experience forced engagement. This type of forced engagement may tax the psychological resources of older adults, which may lead to an increased level of depression and social isolation in older adults (Beach et al., 2005). Older adults are pressurized by society and their children to be involved in physical and social activities to lessen the workload of their children. The older female adults have to help with household tasks, in the kitchen, and in taking care of grandchildren. Similarly, older male adults are also giving time and consuming their energies in fulfilling their occupational responsibilities because of different demands from their children. Sometimes, older adults are also forced by their children to attend social gatherings, marriages, and funerals (Dhillon et al., 2012).

On the other hand, some older adults are involved in daily social, domestic, and occupational deeds willingly and happily. They consider themselves productive members of society and enjoy their participation in different roles and boundaries because they believe that their wisdom and experience are still valued, which may boost their self-efficacy and positive self-esteem resulting in improved quality of life (Rejeski & Mihalko, 2001). Therefore, engagement by choice may bring positive and healthy changes in older adults' lives as they are assumed to be contented and satisfied members of society with a low level of social isolation and negative psychological outcomes (Cattan et al., 2005). It is quite surprising to note that despite the significance of the engagement process, no psychometrically sound measure is available for the operationalization of engagement and its various manifestations among the elderly. Therefore, to address the need for a reliable measure of engagement among older adults, the Engagement Aging Scale (EAS) was developed and validated. The scale provides a concise and psychometrically sound measure of engagement for use in aging

research. To achieve this end, the present study aims to develop EAS while establishing the empirical evidence for its (a) factorial structure through exploratory factor analysis, (b) internal consistency, and (c) confirmation of factorial structure through confirmatory factor analysis, and (d) construct validity.

### ***Engagement and Identity Processing***

The Identity Process Theory suggests that individuals maintain a balance between their experiences and self-concept through three processes: identity accommodation, identity assimilation, and identity balance (Whitbourne & Sneed, 2002). Identity assimilation is found to become more prevalent in older adults (Kirk, 2015) and is considered more relevant to the current investigation. Identity assimilation refers to the preservation of self-affirmation, where one maintains one's self-explanatory schemas (Sneed & Whitbourne, 2005). While being an assimilator has both advantages and disadvantages, the overuse of this style can lead to feelings of exhaustion and disappointment (Whitbourne & Sneed, 2004). Therefore, there seems no relationship between identity assimilation and engagement by choice or forced engagement.

### ***Engagement and Depression***

Dyer et al. (2000) found a high prevalence of depression and dementia in elderly individuals who have suffered from abuse or neglect. Ganatra et al. (2008) observed that several agents made older Pakistani adults more vulnerable to depression. Their study results showed that health issues, taking several medicines daily, financial difficulties, loneliness, unsuccessful aging, and unmet spiritual needs were significantly linked to depression (Malak & Khalifeh, 2018). From the previous studies it was concluded that when older adults were forcefully engaged in different domestic and occupational roles and responsibilities, they may feel isolated and depressed as compared to those older adults who were engaged by choice (Cornwell & Waite, 2009).

## **Method**

The current study used a cross-sectional design and was comprised of two separate studies.

### ***Study I: Scale Development and Exploratory Factor Analysis***

Study I involved the development of EAS in consonance with the literature on the disengagement theory (Cumming & Henry, 1961).

Study I was further divided into three phases. Phase I involved conducting semi-structured interviews with the older adults whereas two focus group discussions (FGDs) were conducted in phase II to qualitatively explore the manifestations and experiences of both types of engagement among the older adults. The third phase involved the generation of an item pool in light of qualitative themes generated from the first two phases.

**Procedure and Participants of Phase I.** To explore the concept of both types of engagement in older adults and to get in-depth information on individual experiences about the types of engagement; semi-structured interviews of older adults who were free from their household responsibilities and were able to do the majority of their daily deeds on their own were conducted. Interviews with four men and three women were conducted by the researchers. The age range for men was 65 to 81 years whereas the age range for women was 63 to 75 years.

**Procedure and Participants of Phase II.** After getting the core ideas and common beliefs about engagement by choice and forced engagement in older adults, it was needed to be focused on basic themes of engagement. For this purpose, two focus group discussions are conducted with older adults. The researcher conducted the first focus group with 6 women with an age range of 61 to 75 years and the second focus group was conducted with 7 men with an age range of 65 to 77 years.

Both the interviews and FGDs were recorded and then transcribed using Jefferson et al. (2004) transcription method for further analysis. Data were then analyzed through thematic analysis in accordance with Braun and Clarke's (2006) six-step procedure, which yielded the following important themes: (i) *Societal pressure* elucidated that despite their old age and poor health conditions; sometimes older adults are forced to be engaged in physical tasks on account of familial and societal pressure. Women must do work at home and men have to give time at the workplace (ii) *Forced financial engagement* shows that older adults are forced to provide financial support to their children and grandchildren (iii) *Forced social engagement* highlights that the negative and disrespectful attitude of children may contribute to the low well-being of older adults. Older adults are forced by their children to attend social gatherings such as marriages and funerals (IV) *Productive part of society* depicted that the older adults were considered the fruitful part of society by playing the role of advisor, guide, and mentor. They also played the roles of expert and polished trainers for the young generation (v) *Support providers* concluded that the older adults were supposed to provide

physical support to their children at a young age, psychological support in adolescence, and financial support from birth to their time of settlement, they also played the role of helping hands at homes and workplaces (vi) *Maintenance of prestige and importance*, highlighted that by active involvement in different domestic, social, and occupational deeds, the older adults maintained their respect, dignity, and importance in society.

**Phase III: Scale Construction.** By keeping in view, the pertinent literature and the main themes obtained through thematic analysis, an initial pool of 30 items was generated to assess the concepts of forced engagement and engagement by choice. These items were written using clear, concise, and exoteric Urdu language. The 30-item scale was handed over to six experts including two lecturers and four assistant professors of the Department of Psychology (all having PhD degrees) and they were requested to critically review all items of the scale. 12 items were deleted based on suggestions provided by them. During the expert review, some items were also rephrased so that the participants could easily comprehend each item. Therefore, through census, an 18-item scale was developed based on selection criteria. Moreover, there was complete consensus about the items as each item on the scale had adequate content and face validity. The response format for this scale was a 5-point Likert type ranging from 1 = *very untrue* to 5 = *very true*. Moreover, no negatively phrased items (reverse items) were added to the scale.

**Sample.** EFA was conducted on a purposive sample of older adults who were personally approached at their homes in two cities in Pakistan. The purposive sample for the study consisted of 200 occupationally retired and married older adults, who were 65 years of age or older ( $M = 65.05$ ,  $SD = 6.23$ ). In Pakistan, employees are considered officially retired at 65, making 65 a suitable benchmark for distinguishing between late adulthood and old age. The sample was composed of 66 men and 134 women, with 112 living with their spouse and 88 whose life partner had passed away. 127 participants belonged to nuclear families and 73 to joint families. 139 older adults were rural residents and 65 were urban residents.

### ***Study 2: Confirmatory Factor Analysis and Construct Validity of the EAS***

Study II was conducted to confirm the factor structure of EAS found in study I in an independent sample. Moreover, study II also established the construct validity of the EAS.

## Participants

The purposive sample for Study 2 was collected from two districts in Pakistan and consisted of 500 occupationally retired and married older adults, who were 65 years of age or older ( $M = 67.35$ ,  $SD = 7.41$ ). The sample was composed of 265 men and 235 women, with 255 living with their spouse and 245 whose life partner had passed away. 110 participants belonged to nuclear families and 390 to joint families. 237 of the older adults were from rural areas and 263 were from urban areas.

## Instruments

EAS developed in study I was used to measure the disengagement among the participants.

*Depression Subscale of Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1995).* The study used the Depression Subscale of the DASS (Lovibond & Lovibond, 1995), which was adapted in Urdu by Farooqi & Habib (2010). Participants rated each statement using a 4-point Likert scale, ranging from 0 (*did not apply to me at all*) to 3 (*applied to me very much*), to indicate their experience over the past week. The internal consistency of the DASS was  $\alpha = .81$  to  $\alpha = .91$ . None of the items on the scales was reverse scored.

*Assimilation Subscale of Identity and Experiences Scale (IES; Whitbourne & Sneed, 2002).* The study used the Assimilation Subscale of IES (Whitbourne & Sneed, 2002), which was adapted in Urdu by Khan (2018) for operationalizing the assimilation processing among the elderly. The scale included 11 items rated on a 7-point Likert-type scale (1 = *not like me at all*, 7 = *completely like me*). The items were not reverse-scored, and the internal consistency of the identity assimilation was  $\alpha = .81$  (Whitbourne & Sneed, 2002).

## Procedure

The study participants were approached in person at their homes. In accordance with the ethical standards of the study, informed consent was obtained from the participants of the study. The purpose of the research was clearly explained to the participants and provided with clear instructions on how to complete the questionnaire. They were encouraged to be truthful and open about their feelings. The privacy and confidentiality of their responses were guaranteed, and there was no time limit for completing the questionnaire. After



finishing, all participants were personally thanked for their participation and support. The response rate was 90%.

## Results

### Exploratory Factor Analysis of EAS

Several well-established standards were used to assess the factorability of the correlational matrix of all items of EAS. Findings of the EFA revealed that the remaining 9 items correlated .47 to .85, indicating workable factorability. Bartlett's test of sphericity showed that the correlation matrix was significantly different from an identity matrix and had enough common variance for factor analysis (significant at  $p = .000$ ). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .83, which is higher than the recommended value of .65, suggesting that the data is suitable for factor analysis. The high KMO value indicates that the correlation matrix is suitable for factor analysis, and the results of factor analysis will provide meaningful and interpretable results (Beavers et al., 2013). Finally, the communalities were  $> .30$ .

The findings of the EFA revealed two factors having eigenvalues greater than 1. The primary eigenvalues exhibited that the first factor described 35.26% of the variance and the second factor accounted for 20.09 % of the variance. An unconstrained two-factor solution was finalized because of several reasons. The two-factor solution was according to the two concepts of engagement. Secondly, the scree plot exhibited that eigenvalues seemed to be leveled off after 2 factors. Table 1 indicated that items nos. 1, 2, 3, 4, and 5 were loaded onto Factor 1 representing forced engagement since all these items are theoretically measuring unhealthy consequences of forced engagement. Items no 6, 7, 8, and 9 were supposed to measure engagement by choice. Overall, the present results indicated that the factor structure of the EAS is theoretically meaningful, coherent, and interpretable. The alpha coefficients of EAS and all its subscales ranged from .88 to .90 which indicated satisfactory internal consistency. None of the values of the skewness were aberrantly high which ensured the normal distribution of the data.

### Confirmatory Factor Analysis of Engagement Aging Scale

The factor structure of the EAS was assessed using CFA in IBM SPSS Amos v. 24. We used maximum likelihood (ML) estimation for

the CFA. ML estimation is advantageous in CFA as it is more efficient and suitable for large sample sizes, and yields straightforward model comparisons and statistical inferences.

**Table 1**

*EAS Factor Loadings Through Maximum Likelihood with Direct Oblimin Rotation (N = 200)*

Items	<i>M</i>	<i>SD</i>	Forced Engagement	Engagement by Choice	<i>h</i> <sup>2</sup>
1	3.96	1.52	<b>.64</b>	-.03	.48
2	3.78	1.27	<b>.72</b>	-.06	.62
3	3.14	1.38	<b>.77</b>	-.13	.45
4	4.09	.84	<b>.70</b>	-.06	.61
5	3.67	.97	<b>.75</b>	.11	.45
6	3.88	1.35	.06	<b>.76</b>	.31
7	3.04	1.48	.08	<b>.81</b>	.33
8	4.19	.85	.04	<b>.88</b>	.80
9	4.22	1.21	-.01	<b>.63</b>	.85
Statistics			Forced Engagement	Engagement by Choice	
Eigenvalues			4.21	3.35	
% of variance			35.26	20.09	
$\alpha$			.90	.88	
<i>M</i>			5.51	4.28	
<i>SD</i>			.71	1.01	
<i>SK</i> <sup>a</sup>			.42	.31	

Note. Factor loadings < .50 are suppressed. *KMO* = .83; Bartlett's test of sphericity  $\chi^2(120) = 4433.52$ ;  $p = .001$ ;  $r$  (forced engagement-engagement by choice) =  $-.41$ ;  $p < .01$ .

Detailed findings of the factor structure of the EAS have been given in [Table 2](#) with the fit indices.

**Table 2**

*Stepwise Model Fit Indices for CFA of Engagement Aging Scale (N = 500)*

Models	$\chi^2$	<i>df</i>	Fit Indices					$\Delta \chi^2$	$\Delta df$
			GFI	GFI	CFI	NFI	RMSEA		
Model I (9 items, First Order, Independent Error Variances)	381	84	.91	.86	.93	.91	.08	.07	
Model II (9 items, First Order, Error Variances allowed to Covary)	86	30	.96	.94	.97	.96	.05	.04	295*** 54

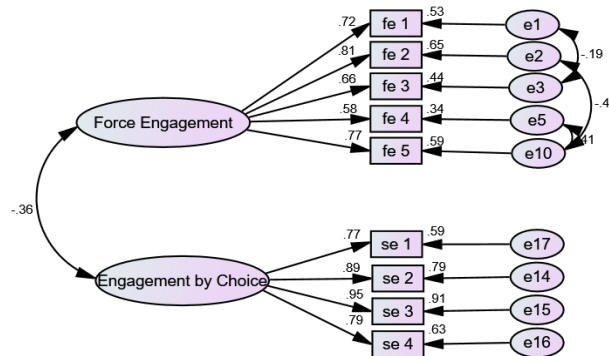
\*\*\*  $p < .001$ .

The initial model included 9 indicators with independent errors and had an unacceptable chi-square to do ratio of 4.5, indicating poor fit. In the second model, error variances of various indicators were allowed to covary in accordance with the modification indices, resulting in a better fit with a chi-square to do ratio of 2.8, and values of *CFI*, *GFI*, *AGFI*, and *NFI* above .90, *RMSEA* of .04 with a *close* value of .01, and standardized *RMR* of .05. The higher-order structure of EAS was confirmed by comparing the first and second models, with the chi-square difference test showing that the second model fit the data better than the first ( $\Delta\chi^2 = 295, \Delta df = 54, p < .001$ ).

The standardized factor loadings of all indicators of the first-order factors were above .30, demonstrating their exclusive role in defining the factors of EAS (as shown in Figure 1). The final model includes 9 items and has a good fit. The factor loadings of the remaining items ranged from .58 to .95 (see Table 3).

**Figure 1**

*Standardized Factor Loadings in Confirmatory Factor Analysis of EAS*



**Table 3**  
*Standardized Loading in the Confirmatory Factor Analysis of EAS (N = 500)*

Item No	Forced Engagement	Engagement by Choice
1	.72	-
2	.81	-
3	.66	-
4	.58	-
5	.77	-
6	-	.77
7	-	.89
8	-	.95
9	-	.79
<i>α</i>	Forced Engagement	Engagement by Choice
	.91	.82

### Validation of the EAS

We assessed the construct validity of the EAS by following the recommendations of Hair et al. (2010). The strong negative relationship between engagement by choice and DASS and the strong positive relationship between forced engagement and depression provide evidence for the convergent validity of the EAS. Moreover, both subscales of EAS did not demonstrate significant correlations with the IES which established the evidence of its discriminant validity.

The Average Variance Extracted (AVE) values for the four constructs were greater than .50, indicating convergent validity of the measures. Discriminant validity was established as the values of the Maximum Shared Variance (MSV) were lower than the AVE values, and the square root of the AVE on the diagonal was greater than the inter correlations of the constructs (see Table 4). Finally, all values of HTMT correlations remained < .85, which again supported the discriminant validity of the latent constructs.

**Table 4**

*Descriptive Statistics, Reliability, and Construct Validity of the EAS (N = 500)*

Scales	<i>M</i>	<i>SD</i>	$\alpha$	<i>Sk</i> <sup>a</sup>	CR	AVE	MSV	MaxR(H)	1	2	3	4
1. FE	2.811	1.18	.91	.49	.84	.51	.13	.85	<b>.71</b>	-	-	-
2. EC	3.451	1.10	.82	.67	.92	.73	.39	.94	-.36 <sup>***</sup>	<b>.85</b>	-	-
3. DEP	.63	.55	.91	-.30	.91	.60	.39	.92	.16 <sup>**</sup>	-.62 <sup>***</sup>	<b>.77</b>	-
4. IA	3.871	1.15	.81	-.18	.93	.68	.03	.94	.04	.03	-.14 <sup>**</sup>	<b>.83</b>

*Note.* FE = forced engagement; EC = engagement by choice; IA = identity assimilation subscale of IES; DEP = depression subscale of DASS. MSV = maximum shared variance; CR = composite reliability; AVE = average variance extracted; MaxR(H) = McDonald construct reliability. The bold diagonal displays the square root of the AVE. <sup>a</sup>Standard error of skewness = .11.

\*\* $p < .01$ , \*\*\* $p < .001$ .

### Discussion

Disengagement theory claimed that in old age, elders usually disengage themselves from social, domestic, and occupational roles, and this disengagement could be essential for the good physical and mental health of older adults. Failure in the process of disengagement categorized the older adult as unsuccessful ager who was forced to be engaged in several roles and responsibilities. However, sometimes

older adults were forced to be engaged in different social and physical tasks by their families and society. This engagement in roles and boundaries in old age may take two forms: forced engagement and engagement by choice. The present study developed and validated the EAS to operationalize these two manifestations of engagement in elderly people. The factorial structure of the EAS indicated a clear two-factor solution. The first factor of the EAS is forced engagement which depicts that older adults are forced to engage in different domestic, occupational, financial, and social roles and responsibilities by their children and society against their consent and will. Accordingly, themes such as societal pressure, forced financial engagement, forced social engagement to reduce well-being, and poor quality of life seems to be the important constituents of forced engagement in older adults. The second factor of the EAS is engagement by choice which occurs when older adults engage themselves in different occupational and domestic roles and responsibilities to their will. Older adults who are willingly engaged in social and occupational responsibilities and roles consider themselves a productive part of society. Themes such as being the productive part of society, support providers, maintenance of prestige and importance, improved well-being, and quality of life converge in the concept of engagement by choice in older adults. Engagement by choice occurs when older adults consider themselves responsible for providing physical, social, moral, and financial support to their children and engage themselves in different occupational and domestic deeds even in old age with their own will and wishes.

Engagement by choice demonstrated a significant negative relationship with depression, whereas forced engagement demonstrated a significant positive relationship with depression which confirmed the strong convergent validity of the EAS. Forced engagement contributed to the poor physical and psychological health of older adults. Older adults become victims of depression, loneliness, and social isolation when they realize that their children do not take care of their feelings, emotions, and health. These findings are also in line with the results of a previous study, which indicated that the extra burden of work in old age might lower the quality of life and increased the chances of depression in older adults (Lachs & Pillemer, 2004). On the other hand, older adults considered themselves responsible for providing financial, psychological, and social support to their children from birth to their settlement phase and even after that. This line of reasoning has also been supported by the results of a past study, which indicated that when older adults fulfilled all the physical, social, and financial needs of their young ones, children

valued them and considered them a productive and fruitful part of society, which might prevent the older adults from being a prey to social isolation and depression (Cornwell et al., 2008). Cattan et al. (2005) reported that these feelings of being productive enhanced self-esteem and reduced loneliness and depression.

The discriminant validity of the EAS was established against identity assimilation. According to the Identity Process Theory, individuals who adopt the identity assimilation style are resistant to changes related to aging and try to maintain their younger identity. This is because they see change as a threat to their self-concept and prefer to keep things familiar and stable (Sneed & Whitbourne, 2003). Sneed and Whitbourne (2005) concluded that despite using the assimilation technique of identity processing, the positive impacts of engagement by choice could not be enhanced and the negative impacts of forced engagement could not be reduced in older adults, which suggests that assimilation identity style and engagement are not related. Uhlenberg (2005) also concluded that the assimilation technique of identity processing has not increased successful aging among older adults. The results of the present study have also shown that EAS has a non-significant correlation with identity assimilation. Discriminant validity was further established for the EAS through the examination of the values of the Fornell-Larcker criterion (HTMT correlations), which were greater than .85. Additionally, the values of the Maximum Shared Variance (MSV) were lower than the AVE values, and the square root of the AVE on the diagonal was greater than the inter correlations of the constructs.

### **Limitations and Suggestions**

Moreover, the study was limited to older adults from two districts of Pakistan, which may not reflect the views and experiences of older adults from other regions or cultures. The sample size was also relatively small and may not be representative of the entire older adult population in Pakistan. Additionally, the study relied on a purposive sampling method, which may have resulted in a biased sample. Finally, the study was conducted in the Urdu language which may have resulted in cultural and linguistic limitations for some participants.

In the current study, the social desirability effect was not controlled. The sample of the present study was quite restrictive as all the participants in this study belonged to two districts of Pakistan. This study also suggests avenues for further research in this field. It is crucial to continue investigating the psychometric qualities of the EAS

using new samples from various cultural backgrounds. Cross-cultural research is needed to delineate the cultural influences on the manifestations of the engagement process. Moreover, the nomological network of the engagement process in the elderly is still in its infancy and future research should identify pertinent correlates of the engagement process.

### **Conclusion and Implications**

It is crucial to understand the emotional and mental health status of older adults in such cultures, as it can have a direct impact on their quality of life, as well as the well-being of their families and communities. In particular, it is important to examine the relationship between identity processing, depression, and other socio-demographic variables in older adults, as this can provide valuable insights into their emotional and mental health status and can inform intervention programs aimed at improving their well-being. Moreover, it can also help in creating a supportive environment for older adults, where their experiences and knowledge are valued, and their emotional and mental health needs are addressed. During the qualitative exploration of disengagement, we came to realize that it was not necessarily the disengagement that led to successful aging, rather it could be the engagement as well which might serve as a contributory factor to successful and unsuccessful aging. We emphasize that disengagement and engagement are two distinct yet interrelated constructs, therefore, the present study theoretically elaborated the process of engagement and developed its psychometrically sound measure. Thus, the present research not only theoretically explained but also empirically supported that the older adults who continue to be engaged in the occupational and domestic responsibilities of their own choice should also be considered successful agers since they are still autonomous, productive, generative, and enjoy a better quality of life with sound mental health. This is in sharp contrast to the older adults who experience forced engagement against their own will, which may exacerbate their already declining physical and psychological well-being. The creation of the EAS represents a significant advancement in the examination of indicators of successful and unsuccessful aging. The findings of this study provide sufficient empirical evidence to support the use of the EAS for research purposes, making it easier to assess successful and unsuccessful aging in elderly populations. In this context, the EAS provides new opportunities to evaluate the antecedents of engagement, its indicators, and its relationship with positive and negative measures of mental health such as depression, well-being, life satisfaction, loneliness, quality of life, and meaning in

life, etc. From a practical perspective, the results of this study could have a range of benefits for gerontologists and psychologists. Furthermore, the findings of the study can contribute to the development of interventions aimed at promoting engagement among older adults, leading to the improvement of their quality of life. The results can also help healthcare providers, policymakers, and family members to understand the significance of engagement and its impact on the physical and mental well-being of older adults. The results can provide valuable insights into the development of programs and activities that can foster engagement and enhance the quality of life among older adults.

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