

# Construction and validation of Iranian midlife challenges scale

## Abstract

The aim of the present study is providing a viable tool for research in the field of middle age development that could help in the setting up of various researches in this field. Therefore, after examining the various theories about the middle age development 12 areas of developmental challenges were identified and based on them 66 questions (on average 5.5 questions for each domain) was designed. In the first, the questions were assessed in terms of content validity by four experts in the field of developmental psychology and then the wording of some questions modified. Later, the questionnaire was conducted on 398 participants (204 females and 194 males) between the ages of 40-65 years of residents of 22 districts of Tehran. The results showed that the scale has 7 factors include: job satisfaction, concerns, social responsibility, and lack of pleasure, leisure, family attachment, marital satisfaction and feel close to death. The internal consistency of the questionnaire showed that all subscales enjoy of acceptable validity. As a result, the scale is applicable to conduct research in the field of middle-aged developmental challenges.

**Keywords:** scale challenges of midlife, midlife growth, developmental psychology, factor analysis

Volume 9 Issue 6 - 2018

**Abbas Roozbehani, Mahnaz Aliakbari Dehkordi**

Department Psychology, Payam Noor University, Iran

**Correspondence:** Abbas Roozbehani, Department Psychology, Payam Noor University, Iran, Email aroozbahani@yahoo.com

**Received:** January 23, 2017 | **Published:** November 23, 2018

## Introduction

What challenges faced with them people in midlife? On the other hand, what are midlife developmental tasks? Many believe that the middle age is the climax of the life.<sup>1</sup> However, the definition and description of characteristics of this period of life's cycle is difficult. A period that a person's income, occupation and relationship with others are at the peak of its growth. However, there is disagreement on the definition of middle age. Some have defined middle age associated with age and others defined it based on developmental assignments. The age range of beginning of middle age is controversial too. Some limited it between 35 to 50 years and for others it ranges from 40 and 65.<sup>2</sup> For others the middle age is the most central of life that generally refers to adulthood without dividing it into early or late adulthood.<sup>3</sup> Imprecise age boundaries cause confusion on the exact definition of middle-aged in terms of chronological age. By the way, the age boundaries between 40 to 60 years old for this period of life are more agreeable by researchers.<sup>4</sup> Therefore, some believe that middle age should be defined with the patterns of indicators rather than chronological age alone.<sup>4</sup> Some scholars suggest that division of the middle-aged to primary and secondary can be helpful. They believe that early middle age can be indicate with: consolidation of family and job, responsibility for children and family, and relationship with parents and the secondary one can be specified with: concerns about physical health, retirement and being grandfather or grandmother.<sup>4</sup> So far, this area of development for reasons such as the lack of a precise definition of age boundaries, lack of social and psychological reasons and being neglected problems of people at middle-aged and also heterogeneity of its developmental assignments, is not considered as it deserves.<sup>4</sup> Recently, however, more interest has arisen to the middle-aged years of the life span and much of it is due to demographic changes (aging population is increasing worldwide) and research gaps in this area, which has caused this area of development

called the last unknown territory in human development.<sup>4</sup> The concept of "midlife crisis" was introduced by Elliot Jacques.<sup>5</sup> He believed that the midlife crisis of human development is an important step that occurs when adults accept their mortality. The midlife crisis is difficult transition that occurs around age 40. The midlife crisis involves rapid changes in personality. Middle-aged person experiences negative emotions, Personal future, dual feelings about the past and dual assessment of past achievements and scramble for new personal purposes are another characteristic of this period of life cycle. Jung<sup>6</sup> was the first that theoretically support the idea of a change in the middle age.<sup>7</sup> According to Jung, in the middle age individuation and differentiation occurs and non-dominant aspects of personality have pressed for consideration and revealing. Person in mid-life also have to balance between femininity/masculinity and introversion/extroversion. Levinson<sup>8</sup> raised the most controversial issues about midlife. He believes that 80 percent of people experience midlife crisis. He also believes that individuals in this stage began to evaluate their life. He applied the concept of the life cycle to describe the stage of life and the life structure for describing the pattern or design of life that person apply at particular time. The life structure is answering the question that how is my present life? Which is an important part of my life now? Is there something missing in my life that I want to fill it? The life cycle including relationships, marriage/family and jobs.<sup>8</sup> Levinson believes that any transfer occurs in five stages: stability, increased discomfort, crisis, re-orientation and re-stability. Midlife crisis occurs when a person need booth to change and stability. Levinson<sup>8</sup> knows midlife crisis as a normative phenomenon and believes that it occurs in many people lives. Although, researchers later raised doubts on universality of midlife crises. This researcher pointed to gender and age diversity in onset of the crisis and the lack of prevalence of crises as Levinson's theory claimed. Without a doubt, the most unknown concept that has been used to describe the middle age is midlife crisis. Today, its common definition that includes

normativity, being for specific age range and has distinct structural indicators is being under question.<sup>9</sup> Freund & Eater<sup>2</sup> suggest that the mild definition of midlife crisis can include the following features:

1. A challenge that occurs in middle age.
2. Does not occur normatively but in some people and in a certain age.
3. Cannot be considered as a crisis but as a developmental challenge.

Neugarten, in contrast to Levinson, proposed the idea of the social clock (social timing theory) to help to explain adult development.<sup>10</sup> He believes the adult's sense of time and timing is different from the past. While adult life has been considered since birth, remain of the life is important for person now. Middle age person sees the future as more personal growth and start to thinking about the end of life and the feeling of imminent end associated with an increase in social choice.<sup>11</sup> This awareness of the life cycle, affects in selecting objectives and priorities. Adults, compare their progress by social timing of important events and transitions. They compare their selves with adult peers on how they overcome the mid-life career and family challenges. So, the two important developmental areas in midlife are job and family. Most of adults are trying to balance between this two. Erikson<sup>12</sup> assumed challenge of "generation verse stagnation" for middle age. He states that during this stage people are more mature and have the skills and resources to transfer to others. He knows generatively as activity that stems from concerns about the next generation. Through concern to the next generation, an adult not only help others to develop society but convey worries beyond his/her life and time. Others such as George Vaillant has focused on develop Erikson's developmental stages of adults. In 1938 he conducted a study for 16 years over 300 18-year-old students. He has confirmed Erikson stages of adult development and added two stages; Job consolidation against self-attraction and retain the means against being inflexible. He knew Developmental Tasks of adulthood include the following: identity development (separation from parents), developing intimacy, job consolidation, generativity (give advice to the new generation), and retention means (transmit traditions to the next generation) and achieve integration (restoration of peace and the unity).<sup>13</sup> from long-term study Vaillant concluded that some men at midlife divorce, change jobs or become depressed.<sup>14</sup> Thus, according to Vaillant, generativity, maintaining meaning and achieving integration can be considered as assignments of middle age development. Gold<sup>15</sup> believe that adults have to overcome his childhood false assumptions. He proposes four false premises:

1. I am belonging to my parents and I believe their world
2. Doing things the way that my parents do, work and preserve me and if I'm desperate, tired and confused parents come forward and help me
3. Living is controllable
4. There is no evil and death in the world.

In Gold opinion, adulthood is accompanying with development crises as the individual learns how to take control of his/her life and overcome the childhood false assumptions. They find that childhood assumption is false and adult development includes "dismantling" the illusion of safety in childhood. Gold<sup>15</sup> believes that there is no wrong assumption from middle age onwards and this time is for making meaning of life. The individual must cope with new knowledge, including coping with loss, or the inability to perform tasks as they did in past, nearing to death, and to face

with values. With this new knowledge, adult is ready to meet the life challenges without trying to fight with evils.

Havighurst<sup>3</sup> believe that middle age is a time when person try to succeed in various developmental assignments. the assignments include social and civic responsibility, having job, providing standard economic status, helping young people to take responsibility, attention to leisure activities, having a relationship with spouse as a person, adaptation with physical changes of middle-age and adapt to elderly parents. Havighurst's theory contain a biopsychosocial viewpoint to adulthood development. A study of the validity of Havighurst's theory showed that three important task of midlife are: spouse relationship, contribute to improve responsibility and prosperity in adolescents and to establish and consolidate economically standard living. As well as tasks such as: compatibility with older parents, acceptance of physiological changes, develop and improve adult's leisure activities and achieve to civic and social responsibility ranked next in importance in middle-aged Developmental Tasks.<sup>16</sup> After emphasis of Levinson on the normativity of midlife crisis, research showed that people experience a midlife crisis as the turning point and it is not a universal agent.<sup>17,18</sup> for this reason, recently it was argued that the strict definitions for middle-aged crises (normativity) and being specific to a particular stage of life and structurally being different from other crises as Levinson define it, also average definition which specified with being especially to certain age and being normative, based on research that was conducted, cannot be totally accepted. Instead, a milder definition that includes features such as challenging assignments, the normativity of it in a manner that occurs for some and not for others, and being critical so that it can be called developmental challenges is more acceptable.<sup>2</sup> The concept of developmental challenges instead of midlife crisis is supported by empirical evidence and can arise new research in this domain. In summary, according to existing theory, the first issue in midlife challenge is to overcome the frustration of unrealized dreams and aspirations of youthful and the new ones that must be created. The second issue is deciding how to continue the life structure. Person at middle age faced with questions about marriage, adolescent, grappling with achievement or dies achievement in job, thinking about the people and the world, solving problem of multipolarity of personality such as femininity/masculinity, feeling about death, the need for autonomy and dependence on others.<sup>19</sup> Similarly, Shek<sup>18</sup> suggests 8 issues conceptualization of midlife crisis:

1. Concerns about the future,
2. The inability to enjoy leisure,
3. To reduce health
4. Negative assessment of the parent-adolescent relationship
5. Negative assessment the relations between spouses,
6. Negative evaluation of career,
7. Confusion the meaning of life,
8. Stress of caring with elderly relatives.

Hermans & Oles,<sup>20</sup> also present three important features of midlife crisis including:

1. Early adulthood adaptation that no longer efficient
2. Feeling the change of time (since birth) to the (remained)
3. An emphasis on planning for the second half of the life.

The aim of the present study is construction and validation of an instrument to measure middle-aged developmental challenges. For

this purpose, various theories of middle-aged development have been studied and the basic concepts of midlife developmental extracted from the theories. With an overview of various theories of adult development, we realize that some important task for middle-aged by most of them have been proposed that include: the transfer of traditions to the next generation, reduce the physical ability and the acceptance of body changes, leisure, taking care of elderly relatives, coping with the loss, the feeling of integration, looking ahead as personal growth, comparing progress with other peers and social timing, balance personality traits, revise the objectives and sensitivity to time. Therefore, the provision of appropriate tools for assessing the challenges of middle age should cover all above assignments.

### Midlife crisis measures

An internet search was made based on “midlife crisis scale” and “midlife challenges scale” as key words and a small number of scales were found to review. Little information has been reported by some measures, for example, McCrae and Cooper midlife crisis scale includes categories such as senseless, dissatisfaction with job and family, confusion and internal turmoil, and a sense of physical decline and death (McCrae and Costa, 2005, p 176). Chinese midlife crisis scale (C-MCS) developed by Shek<sup>18</sup> have 15 items that includes the following areas: Concerns about aging (2 items), inability to enjoy leisure (1 item), Feeling decline in health (1 items), negative assessment of the parent-child relationship (3 items), negative assessment of the marital relationship (1 items), negative evaluation of career (3 items), confusion (1 item), lack of time to achieve the aims (1 item) lack of success (1 item), the stress of caring for elderly relatives (1 item). Midlife crisis questionnaire (MCQ) was made by Hermans & Oles.<sup>20</sup> The questionnaire consisted of 115 subjects covering the following areas: physical changes, changes in interests,

preferences and life goals, dissatisfaction with past advancement and current professional status, family life and marriage, changing time perspective, personal encounter with death, involved in personal endeavors, the necessity to change one/s life, awareness of personal generativity, and changing attitudes about the future. It's short form with 52 items later was built as a midlife crisis (MLC).<sup>20</sup> For the study of the middle age development in Iran we need an instrument that is consistent with our culture and social status. For this reason and necessity of supplying Iranian tools in this regard it was decided that the challenges of middle age scale be made and standardized.

## Research methodology

### The basic design questions

For design the preliminary questions theories in the area of adult development include: Ericsson, Jung, Levinson, Neugarten, Vaillant, Gold and Havighorst, were studied. Each of these theories emphasis on certain aspects of adult development. 12 developmental areas were detected including: employment, family, interact with teen, physical ability, leisure, care for the elderly, personal evaluation, progress and social timing, sensitivity to time passing, the meaning of life, financial concerns about the aging and death were identified. A total of 53 items were designed as initial questions of developmental challenges scale of midlife including 15 negative and the rest were positive wording. Questionnaire designed in Likert scale (strongly disagree, disagree, do not know, agree, strongly agree) that are scored from 1 to 5 respectively. To verify the formal validity of the questionnaire, the 5 experts in field of developmental psychology were asked to appraisal the items. After collecting the comments wording of some questions were changed. Later, 16 extra items were added to Questions and the scale with 66 items was prepared for administration.

Questions related to any theory as follows:

#### Job-related questions (Havighorst, Levinson, Neugarten)

I do not like my job  
Job responsibilities do a lot of pressure on me  
I am satisfied with my job  
I would choose my current job if I wanted to choose a job again  
Every day I discover that my job is boring and monotonous  
I've got what I wanted in my job  
If possible, I would change my career

#### Questions relating to interact with the next generation (Havighorst, Ericsson, Vaillant)

It is difficult dealing with adolescent  
I have a good relationship with my children.  
I think I could not transfer traditions and values to my children  
I'm concerned about my country youth  
If I get married again I'd still like to have children  
I like Advice and guidance Kids  
It is not difficult to interact with adolescent  
I know myself as socially responsible

#### Questions related to leisure (Havighorst)

I know how enjoy my spare time  
My spare time is often spent without a plan  
I do not know how enjoy my spare time  
I not enjoy my spare time

#### Questions related to family (Vaillant, Levinson, Havighorst)

I regret that I was married and start a family  
I do not have an intimate relationship with my wife  
If I was born again, I was still married  
I'm happy of starting family  
I want to leave my family  
My relationship with my spouse is different from the past  
Now my family is my priority

#### Questions related to Physical weakness (Gold, Havighorst)

It is hard for me to believe that I am physically very weak  
I am concerned about my health  
My health is increasingly falling  
I am not sad that do not have physical potency as past  
I am sensitive to being older

#### Questions related to taking care of unhealthy relatives (Havighorst)

I'm stressed out because of taking care of relatives  
I enjoy to take care of my elderly parents  
I think older people are more inconvenience to be useful  
I cannot bear take care of old relatives

**Questions related to personal evaluation (Neugarten)**

I should revise my goals  
 I think my goals have chosen well  
 I am sad that did not received things that I wanted  
 I'm going to search new goals for life

**Time-sensitive (Neugarten)**

I am sensitive to the passage of time  
 I'm not worried about time  
 I feel I do not have enough time to achieve the objectives

**Financial concerns (Havighorst)**

I am concerned about my financial situation when I get elder  
 I think that my the financial and economic situation is I like most of my peers

**Questions added**

I like giving advice and guidance to adolescents.  
 My job is what I always wanted.  
 At this time, I have concluded that I wish I stayed single.  
 I am going well with my children these days my mind is more involved in my aging  
 I always have plan for my spare time.  
 My concern is taking care of elder relatives.  
 I think I have well established my goals and directed by them.  
 My economic situation is worse than my peers and those around me.  
 I am sad about passing time.  
 At this age, I am still healthy and strapping.  
 I lost my philosophy (I do not know what I was born).  
 I am concerned about the financial situation of aging.  
 I do not think so much about the death.

**Questions compare the progress and Social timing (Neugarten)**

I feel ashamed When comparing my successes with peers  
 In this age I've reached what I wanted  
 Compared to others I am pleased to my economic situation  
 Compared with my peers at this age I am in my favorable position

**The Meaning of Life (Vaillant, Gold)**

I know reason of my existence in this world.  
 I've lost my philosophy of existence (do not know for what reason I am here).

**Imminence of death (Gold and Neugarten)**

I feel that death is near  
 no much time left of my life  
 I do not have a sense of impending of death.

**Method**

**Participants**

The sampling method was multi-stage cluster. So, 22 districts of Tehran were divided to five zones including: West, East, Central, South and North division and cultural centers of every quarter (because of higher possibility of access to participants). Then cultural centers for each region randomly selected and men and women were selected randomly from the cultural center. it should be noted that all the necessary cases, including the aims of the study, confidentiality and non-disclosure of information were explanted to the participants so that ethical considerations of research be observed. Questionnaire were conducted on 398 women (204) and men (194) ages 40 to 65 years old living in 22 districts of Tehran. See Table1 for demographic information of participants (Table 1).

**Table 1** Demographic data, frequency and percentage (n=398)

Variable	Frequency	Percent
Age		
40- 45	96	24.1
46-50	137	34.4
51-55	98	24.6
56-60	45	11.3
61-65	22	5.5
Sex		
Female	204	51.3
Man	194	48.7

marital status		
Married	348	87.4
Single	50	12.5
Number of children		
No children	42	10.6
01-Feb	231	58
03-Apr	97	24.4
5 Up	28	7
Job		
Employed	254	63.8
Free	58	14.8
Unemployed	84	21.1

**Materials**

Participants were asked to respond to the 66 Items about the challenges of middle age. The questions were in Likert scale. For example, in respond to the question “I am concerned about the financial situation of aging” participants must detect to what extent they agree or disagree with Items by choosing “totally disagree”, “disagree”, “I do not know”, “I agree,” “strongly agree”.

**Implementation**

Questionnaires were conducted on participants by undergraduate psychology students of the University of Payam Noor Tehran, South Branch. Before run the questioner, necessary explanations about the

purpose of research, questionnaires, how to run and how to encode the data was explained to the students. The questionnaires were given to subjects and after description of the purpose of the study, were asked them to respond to questions. Therefore, all participants must have literacy of read and write fluently so that they could respond to questions personally.

## Results

### Screening Data

Data for outlines were lookup. No data were outside the limits of values, because of mistakes in entering or encoding the data. The minimum amount of data for analysis, with a sample size of 398 was equal to 6 observations for each question. And this corresponds to the usual recommended that adequate factor analysis for each variable, at least should be between 5 to 10 observation (Table 1).<sup>21</sup>

### Factor analysis

First the ability to run factor analysis on data was investigated. In this respect several criteria were considered. First, all 66 categories were correlated with other categories least 0.3. Second, the scale of sampling adequacy Kaiser Meyer was 0.85, which is higher than the proposed minimum 0.6 (Table 2). Third, Bartlett's test of sphericity was significant ( $\chi^2=10354.38$ ,  $P<0.01$ ). Fourth, the anti-image diameter correlation of all categories was 0.5 represent that all items could be inter in factor analysis. Finally, communalities of all categories were 0.3. This confirms that the variance of each item is shared with the other items. According to above reasons, factor analysis was performed with all 66 categories. Principal component analysis was used to evaluate the component parts of the questionnaire. According to the  $s$  to determine the number of factors, in the first step 19 factors were identified which had eigenvalue 1 and above and had explained

%63 of the total variance. After discarding questions that their reliability was less than 0.6 remaining questions again were analyzed by using principal component analysis with varimax rotation. In the first step 14 factors was appeared that had explained 62% of the total variance of the questionnaire. Due to the lack of satisfactory and large number of factors, other solutions were used by limiting the number of factors. By limiting numbers of factors, 13, 12, 11, 10, 9 and 8 factors were evaluated using the principal components and varimax rotation. Finally, 7 factors solution with 49% of the total variance explanation of questionnaire was selected with regard to the structure of the questionnaire (Table 3). The eigenvalue of the first factor explain 11.77% of the total variance. The second, third and fourth, respectively explain, 3.49, 2.29 and 2.01 percent of the total variance and 68/1 to 30/1 percent of the total variance were explained with other factors. Correlation of 0.4 between the items and factors were considered acceptable. A total of 66 items, 40 questions have been acceptable coefficient with factors (Table 3). The internal consistency by Cronbach's alpha was calculated for each factor (Table 4). As indicated in the table, all the factors benefit of favorable internal stability. In general, this study showed that the midlife challenges scale almost has the same factors that have been mentioned in various theories. For the naming of each of factors the most absolute value of factor loads to be considered. The following names was selected for factors 1 to 7 respectively "job satisfaction", "concerns and failures", "leisure without joy", "social responsibility", "attachment to family", "dissatisfaction with marriage", "feel close to death". This is how to interpret the scores: for job satisfaction, social responsibility and attachment to the family, the lower score indicates challenges in these areas and higher scores are interpreted as lack of challenge. In other subscales (concerns, marital dissatisfaction, lack of pleasure, leisure and feel close to death) high scores indicates no challenges and lower scores represent challenges in these areas.

**Table 2** Factors based on principal component analysis with varimax rotation for the 64-items (n=398)

The questions	1	2	3	4	5	6	7
If possible, I would change my career	-0.74						
My job is what I always wanted	0.72						
I would choose my current job if I wanted to choose a job again	0.71						
I do not like my job	-0.66						
I am satisfied with my job	0.65						
I've got what I wanted in my job	0.6						
Every day I discover that my job is boring and monotonous	-0.48						
I think I have well established my goals and directed by them.	0.45						
I am concerned about my financial situation When I get elder		0.6					
My economic situation is worse than my peers and those around me.		0.59					
I should revise my goals		0.54					
I think I could not transfer traditions and values to my children		0.53					
I am sad that did not received things that I wanted		0.48					
My concern is taking care of elder relatives.		0.46					
Compared to others I am pleased to my economic situation		-0.45					
these days my mind is more involved in my aging		0.43					
I do not know how enjoy my spare time				0.76			

Table Continued

The questions	1	2	3	4	5	6	7
I know how enjoy my spare time			-0.68				
My spare time is often spent without a plan			0.63				
I not enjoy my spare time			0.6				
I always have plan for my spare time			-0.57				
I'm concerned about my country youth				0.73			
I think older people are more inconvenience to be useful				-0.63			
I enjoy to take care of my elderly parents				0.56			
I know myself as socially responsible				0.51			
I do not like to leave my family.				0.44			
I like giving advice and guidance to adolescents.				0.43			
I cannot bear take care of old relatives				0.42			
I have a good relationship with my children					0.69		
I am going well with my children					0.68		
I'm happy of starting family					0.47		
At this time, I have concluded that I wish I stayed single					-0.44		
I'm not happy being married and start a family						0.75	
I am happy to be married						-0.72	
I do not have an intimate relationship with my spouse						0.46	
If I get married again I'd still like to have children					0.41	0.45	
I do not have a sense of impending death.							-0.72
no much time left of my life							0.69
I feel that death is near							0.65
I feel like I still have a lot of time to die							-0.59

Table 3 Test results KMO and Bartlett's sphericity

Test KMO and Bartlett	
Size KMO sampling adequacy	0.85
	$\chi^2$ 10354.38
Bartlett's test of sphericity	df. 2145
	Sig. 0.000

Table 4 Descriptive statistics for 7 factors of middle-aged challenges scale

Factor	Number of items	Mean	standard deviation	Skewness	Kurtosis	Cronbach's alpha
1	8	23.21	6.6	-0.28	-0.51	0.87
2	8	22.17	6.3	0.13	-0.35	0.76
3	5	13.4	3.5	0.38	-0.36	0.8
4	7	26.48	4.81	-0.56	-0.37	0.72
5	4	15.55	3.28	-0.45	-0.69	0.75
6	4	10.25	2.58	0.54	0.8	0.72
7	4	10.41	3.41	0.19	-0.43	0.7

## Conclusion

Constructions of midlife challenges scale derived from existing theories in adult development showed that 7 factor or challenges can be identified for the midlife. These factors include: the satisfaction of a job, concerns, social responsibility, and lack of pleasure, leisure, family attachment, marital dissatisfaction and feel close to death. In general, midlife challenges scale has favorable validity and reliability and is suitable for use in research on midlife development. This study had limitations, including: low number of Items for some factors so that caused some of them have not achieved acceptable reliability and was emitted from analysis. Another limitation is that because of no supervision over the implementation of the questionnaire it is not clear whether all of them are completed accurately. Further, due to financial constraints, there was no possibility of implementing of questionnaire on a large population.<sup>22-26</sup>

## Acknowledgments

We hereby sincerely thank of all of the students of Payam Noor University South Tehran branch for their extensive cooperation in the implementation of the questionnaire, and Mrs. Mostofi for her collaborative arrangements.

## Conflicts of interest

The author declares that there is no conflicts of interest.

## References

1. Tamir LM. Men at Middle Age: Developmental Transitions. *The Annals of the American Academy of Political and Social Science*. 1982;464:47–56.
2. Freund AM, Ritter JO. Midlife crises: A debate. *Gerontology Behavioral Science Section*. 2009;55(5):582–591.
3. Studinger UM, Bluck S. *A view on midlife development from lifespan theory*. In: Lachman ME, editor. Handbook of midlife development. New York, NY: Wiley e book. 2001;3–39.
4. Lachman ME. Development in midlife. *Annu Rev Psychol*. 2004;55:305–331.
5. Menon U. Midlife adulthood in cultural perspective: The imagined and the experienced in three cultures. In: Lachman ME, editor. Handbook of midlife development. Wiley e book. 2001.
6. Jung CG. *Modern man in search of a soul*. New York: Harcourt, Barce & World. 1933.
7. Brim OG. *Ambition: How we manage success and failure throw ought our lives*. New York: Basic Books. 1992.
8. Levinson DJ. A Conception of Adult Development. *American Psychologist*. 1987;41(1):3–13.
9. Roberts P, Newton PM. Levinson studies of woman's adult development. *Psychology and aging*. 1987:154–163.
10. Perun PJ, Bielby DDV. Midlife a discussion of competing models. *Research on Aging*. 1979;1(3):275–300.
11. Carstensen LL, Turk-Charles S. The salience of emotion across the adult life span. *Psychol Aging*. 1994;9(2):259–264.
12. Erikson E. *Identity and the life cycle*. New York: Norton. 1980.
13. Louw AD. Human development. *Kagiso Tertiary*. 1978:508–509.
14. Eysenk MW. *Psychology: A student handbook*. Taylor & Francies. 2000;479.
15. Turner JS. *Families in America: Reference handbook*. ABC-CLIO California. 2002;145.
16. Merriam S, Mullins L. Havighurst's adult development tasks: a study of their importance relative to income, age and sex. *Adult Education Quarterly*. 1981;31(3):123–141.
17. Wetington E. Expecting stress: American and the midlife crisis. *Motivation and Emotion*. 2002;24(2):85–103.
18. Shek DTL. Midlife in Chinese man and woman. *Journal of Psychology*. 1996;130(1):109–119.
19. Whitborn SK, Whitborn SB. *Adult development and aging: Biological perspective*. 4<sup>th</sup> ed. John Wiley & Sons; 2011:185.
20. Hermans HJM, Oles PK. Midlife crisis in men: Affective organization of personal meanings. *Human Relations*. 1999;52(11):1403–1426.
21. Comrey LA, Lee HB. *A first course in factor analysis*. Hillside, NJ: Lawrence Erlbaum Associates. 1992.
22. Bertrand RM, Lachman ME. Personality development in adulthood and old age. In: Learner RM, Easterbrookes MA, Mistry J editors. Handbook of psychology, Developmental psychology. John Wily & sons. New Jersey. 2003:468.
23. Huyck MH. Gender roles and gender identity in midlife. In: SLWills & JD Reid, editors. *Life in the midlife: Psychological and social issues in middle age*. Sa nDiego, CA: Academic Press. 1999:209–232.
24. Levinson DJ, Darow CN, Klein EB, et al. *The seasons of man's life*. New York: KNOPF. 1986:384.
25. Lachman ME. *Handbook of midlife development*. New York: John Wiley & Sons; 2001.
26. McCrea R, Costa PT. *Personality in adulthood: A five factor theory perspective*. New York: The Guilford Press;2005;268.