DEVELOPMENT AND VALIDATION OF MULTI-DIMENSIONAL EMOTIONAL INTELLIGENCE SCALE ON YOUNG ADULTS IN IBADAN METROPOLIS, OYO STATE, NIGERIA

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Abstract
This instrumental study developed and measured the psychometric properties of Multi-Dimensional Emotional Intelligence Scale among young adults in Ibadan metropolis. The study adopted an ex-post facto survey research design. The participants in the study were 362 (106 male and 256 female) young adults randomly selected from various tertiary institutions within Ibadan metropolis. Their age ranged between 20 and 40 years and mean age of 24.3 years. Exploratory Factor Analysis (EFA), Pearson's Product Moment Correlation (PPMC) and Principal Axis Factoring (PAF) were used to analyse the data. During purification process, items with low total-item correlation, using 0.3 as a baseline, were discarded. Items with factor loadings less than 0.35 were removed. The Exploratory Factor Analysis (EFA) with oblimin rotation and eigenvalue greater than 1 revealed a four factor of Multi-Dimensional Emotional intelligence Scale. The four factors accounted for 33.689% of the total explained variance. The instrument has adequate construct, convergent validity and high stability. The sub-scale were: Emotional creativity (49 items; α= .787); Social Awareness (9 items; α= .725); Problem Solving (2 items; α=.754); Assertiveness (4 items; α= .778) and overall Multi-Dimensional Emotional Intelligence Scale (71 items) α =.804. The study has implication for young adults, Counsellors, Psychologists, Health workers, Professionals and Human resource personnel to make use of the various dimensions of emotional intelligence as a whole and observe factors that are responsible for emotional hijack in individuals. It was recommended that if the attributes and competencies of emotional intelligence are included in the school curriculum it will enable the students to learn how to better

understand themselves and others, and to be able to perform effectively in the larger society.

Introduction

The construct, emotional intelligence has witnessed unique interest in favoured literature and among academia. Programmes designed to extend emotional intelligence are enforced in varied settings and courses in developing one's emotional intelligence are introduced in organisations, universities, colleges and different establishments as is the case with all other constructs (i.e. intelligence, leadership, temperament etc.). Many schools of thought exist that aim at accurately describe and the notion of emotional intelligence. At the foremost general level, emotional intelligence (EI) refers to the flexibility to acknowledge and regulate emotions in ourselves and others (Goleman, 2001).

Recently another theoretical framework of intelligence has gained attention in redefining the approach of intellectual skills as conceptualized. This is often the construct of emotional intelligence (EI). This sort of intelligence has been outlined as a group of psychological feature, emotional processes that involve perception, comprehension and emotional regulation that are thought-about vital for adapting to our surroundings and contribute to the psychological well-being (Hoerger, Chapman, Epstein and Duberstein, 2012). Emotions give information concerning themselves, others, the environment, and also the self (Greenberg, 2002). The idea of emotional intelligence proposes that people vary in their ability to understand emotional information or the implications of emotions (Mayer and Geher, 1996). Emotional intelligence involves the input and process phases of emotion-relevant information (Mayer, Salovey, Caruso and Sitarenios, 2003). As with other forms of intelligence, the ways in which an individual inputs and processes knowledge influences the way he or she sees the world and manoeuvers through it.

Goleman (1995) additionally claimed that emotion intelligent people exhibit a high sense of self-interest through activities that are

helpful to the individuals themselves and also the society at large. In cluster things, people with high emotional intelligence tend to find it easier to sustain relationships. Also, people who show high emotional intelligence tend to exhibit high self-awareness, which includes healthy life designs and professional nature. This is often the core of Emotional Intelligence: a term used to describe the complicated ability to manage our impulses, empathize with others and be resilient within the face of difficulties. Therefore, emotional intelligence could be a product of the number of communication between the rational and emotional centres of the brain.

One of the explanations behind emotional intelligence interest to scholars or young adults is that the undeniable fact that some people of average intelligence succeed in their lives, whereas different people struggle and fail in their lives despite being more intelligent (Al-Shayeb, 2010).

Emotions are concerned in everything individuals do in terms of action, decision and judgment. Emotional intelligent individuals acknowledge this and use their thinking to manage their emotions instead of being managed by them (Afolabi, Awosola and Omole, 2010). Thus, an individual perceives emotions as consisting of recognizing and interpreting the importance of emotional states as well as their relations to different sensory experiences. This means that understanding one's emotions and that of others is a very important aspect of understanding emotional development and management. Afolabi, Awosola and Omole (2010) in their study concluded that an individual's emotional intelligence is an indicator of how he or she perceives, understands and regulates emotions. In this study, Bar-On (2000) original model of emotional intelligence was used as a basis for the development of this self-report measure of emotional intelligence as an encompassing model that is expected to produce a reliable basis for a measure of individual's actual level of emotional intelligence.

Emotional Intelligence is broadly defined as ability in perceiving, understanding and regulating our own emotions and that of others (Zeidner, 2008). Emotional Intelligence (EI) has had an enormous impact on management since Goleman (1995) published his book on EI for a wider audience. EI has been employed by some people as an umbrella term that comprises elements like 'soft skills', 'people skills', and a general ability to address life's demands. It is the non-cognitive

aspects of behaviour that has become a very important aspect of human condition as they have an effect on personal and social adjustment, health, learning, creativity, innovation, entrepreneurship, leadership, stress coping, conflict management, education and human effectiveness (Akinboye, 2002).

Lam and Kirby (2002) submitted that emotional intelligence revolves round every spheres of our lives starting from our personal self, among our families and friends, the society we are as well as our working place, thus, the level or amount of our emotional intelligence will determine how we tend to relate well with others. Salovey and Mayer (1997) defined emotional intelligence as the ability to understand accurately, appraise and express feelings, the flexibility to access and to come up with feelings once they facilitate thought, the ability to manage feeling and emotional knowledge; and also the ability to regulate emotions and to push emotional and intellectual growth. They suggested fours areas of application namely: identifying emotions, exploitation emotions, understanding emotions and managing emotions. Akinboye's (2002) definition of emotional intelligence is emotion+thought+creativity=drive skilful primarily based. He projected four stages of application namely: self-awareness, intuitive awareness, win-win and synergy and trust worthiness. A relationship-based definition was suggested by Steiner (2003) who described emotional intelligence as the development of emotional literacy. Steiner's application involves four stages: knowing what feelings we have and the way powerfully and why, recognizing the type, strength and reasons for different people's feelings, developing the love-centered ability to precise or be patient our feelings to boost the standard of our lives and also the quality of lifetime of those around us, and managing emotions and feelings.

To some individuals, the term 'Emotional Intelligence' is an oxymoron. As known intelligence implies rational thinking, purportedly with none feeling. The key to the present compelling question touches several areas of research in Psychology and Management, the two fields which rely heavily on the varied aspects of EI in demystifying some key questions. Moreover, emotional intelligence is expounded to positive outcomes like pro-social behaviours, parental warmth, and positive family and peer relations (Mayer, Salovey and Caruso, 2002a). Emotions are at the highest of human integrity, honesty, fairness,

dignity and different vital human actions. Emotions drive human behaviours and actions. In fact, no human actions, whether good or bad, is emotion free. Actions on the other hand have an effect on emotions. Thus, emotions and actions are reciprocally dependent because the relationships among emotional intelligence, good character, integrity, honesty and fairness alongside with human dignity are thought-about as a basis for ethical behaviour (Kline, 2000).

Major psychological factors like intelligence, temperament, personality, information processing and emotional self-regulation are thought-about within the conceptualization of EI, resulting in a general agreement that EI could also be multi-faceted and will be studied from completely different views (Austin, Saklofske and Egan, 2005; Stough, Saklofske and Parker, 2009; Zeidner, Roberts and Matthews, 2008). Emotional intelligence has recently been described by scholars as the main ticket to successful living. Authors like (Goleman, 1998; Salovey and Mayer, 1994; Akinboye, 2002; Animasahun, 2002) and lot more who have investigated the efficiency of Emotional Intelligence submitted that Emotional Intelligence is that the essential quality for success in life. Emotional intelligence has been seen as the bases for success in life and achieving a smooth, itch free interpersonal relationship with others. Palmer, Donaldson and Stough (2002) found that emotional intelligence will have a big impact on varied parts of everyday living as well as marital stability and that higher emotional intelligence was a predictor of life satisfaction.

Hence, individuals or young adults with high emotional intelligence competencies like impulse control, flexibility, emotional self-awareness and the likes are seen to cope in any kind of situation to be more productive. Pelletteri (2002) reported that people with higher emotional intelligence were more likely to use an adaptive defense style and so exhibited healthier psychological adaptation. Akinboye (2002) also reported that emotional intelligence competencies includes: good character, integrity, empathy, honesty, maturity, impulse control, emotional self-awareness, human dignity, flexibility, reality testing, trust and others. It suffices to mention that each young adult has to possess emotional intelligence competencies and attributes for sustainable intra-personal and inter-personal relationship as this study focuses on the development and validation of Muiti-Dimensional Emotional Intelligence measure to fill the gap within the

incomplete factors of existing measures among young adults in Ibadan Metropolis, Nigeria.

Young adulthood is the transition from adolescence stage which is an important phase of life. It characteristics involves significant life events; young adults may move away from home gaining full residential independence, commence work or tertiary education, and have more freedom in making lifestyle choices. The behaviours of young adults in our society have been of great concern as many of them are lacking some of the dimensions of emotional intelligence such as emphatic understanding, creativity and love which act as ingredient to live peacefully with oneself and others. Such dimensions have not also witness effective consideration in the previous indigenous emotional intelligence scale. Therefore, since all these new dimensions of emotional intelligence were not considered in the development of the previous indigenous instruments, hence, it indicates that is need to improve on existing instruments to broaden and expand to accommodate the new dimensions of emotional intelligence.

Purpose of the study

The main purpose of this study was to carry out a development and validation of a Multi-Dimensional Emotional Intelligence Scale (MEIS) on young adults. Specifically, the study was designed to achieve the following objectives:

  i.   find the characteristics of Multi-Dimensional Emotional Intelligence Scale (MEIS): indicators, multidimensional nature and to determine the factors that are indicative of emotional intelligence

  ii.   examine the construct, content and convergent validity of Multi-Dimensional Emotional Intelligence Scale (MEIS)

  iii. find out the relationship among all the components of multi-dimensional emotional intelligence scale (MEIS)

  iv.   examine the relationship among the factors of emotional intelligence scale and Schutte's emotional intelligence scale

  v.   examine the reliability (internal consistency) and stability over time (test-retest reliability) of Multi-Dimensional Emotional Intelligence Scale (MEIS)

Methodology

This study adopted an ex-post facto research design. Since the variables under investigation have already occurred or being present in the participants prior to the study, the main thrust of the study was to develop and validate Multi-Dimensional Emotional Intelligence Scale for young adults.

Participants

The population of this study consisted of all young adults in Ibadan Metropolis, Nigeria. This included undergraduate and postgraduate students including all young adults in and out of tertiary institutions. The participants were 400 young adults randomly selected from four out of the eleven local governments in Ibadan Metropolitan Area. 117 (29.2%) were male and 283 (70.8%) were female, with age range between 20 and 40 years, and mean age of 24.3 years.

Measures

Demographic information was collected from the participants regarding their age, gender, religion and name of institution. The two main instruments used in the study were self-developed Multi-Dimensional Emotional Intelligence Scale (MEIS) and an adopted Schutte et al, Emotional Intelligence Scale (SEIS) (1998).

Multi-Dimensional Emotional Intelligence Scale (MEIS)

Multi-Dimensional Emotional Intelligence Scale (MEIS) was developed to collect information on emotional intelligence among young adults. The definitive version of the Multi-Dimensional Emotional Intelligence Scale consists of 146 items scale made up of 11 subscales namely: Mood regulation (12 items), Interpersonal skills (13 items), Internal motivation (13 items), Self-awareness (15 items), Stress tolerance (12 items), Optimism (12 items), Assertiveness (14 items), Flexibility (12 items), Problem solving (13 items), Social-Awareness (10 items) and Emotional Creativity (10 items). It was yet to be established whether or not it also offers a measure (second order factor) of general emotional intelligence. The scale is a Likert scale with five response options ranging from Strongly Disagree to Strongly Agree. The overall reliability (Cronbach's alpha) for the new scale was obtained as 0.91.

The Schutte Emotional Intelligence Scale (SEIS)
The Schutte Emotional Intelligence Scale was developed by Schutte, Malouff, Hall, Haggerty, Cooper, Golden, et al., (1998). This is a validated instrument used in the study. The scale is a 33 items scale that was developed to assess perception, understanding, expression, regulation and harnessing of emotion in oneself and others. It is a self-rating inventory that describes the level of one's emotional intelligence in different aspects of life. This inventory is scored on the same 5-point Likert-type scale, ranging from Strongly Agree = 5 to Strongly Disagree = 1. Researchers who have used this scale have reported reliability coefficient of 0.89.

Generation of Items
Items generated are products of prior research on emotional intelligence, multiple sources of information, existing emotional intelligence measures and consultation with experts in the area of psychology and social psychology. From an extensive literature search among many existing measures used to measure emotional intelligence among individuals, eleven attributes and competencies relating to emotional intelligence were identified. These are majorly from Bar-on (1997, 2000) which stated that emotional intelligence has fifteen (15) dimensions and Akinboye (2009) which stated five (5) dimensions of emotional intelligence. Eleven (11) dimensions are coined out of the twenty (20) dimensions. Hence, 10 dimensions out of emotional intelligence by Bar-on include: emotional self-awareness, stress tolerance, flexibility, impulse control, interpersonal skill, problem solving, self-regard, optimism, empathy and assertiveness. Goleman's 5 factors include: interpersonal skills, mood regulation, self-awareness, empathetic response and internal motivation, Akinboye's 5 factors include: Awareness of Emotion, Knowing Emotion, Applying Emotions, Creative designs with the energy of Emotion and Managing Emotions. Therefore, the development of items for multidimensional emotional intelligence scale relied on a combination of two factors: literature review and content analysis of existing measures. Using this method, the literature review generated the first set of items that were included in the emotional intelligence scale. Secondly, the content of responses from 10 postgraduate students interviewed was analyzed. The responses were analyzed for content pertaining to emotional

intelligence. Thus, using this criterion with an in-depth interview method, a preliminary investigation was carried out that took between thirty and forty minutes. At the end of the interaction 67, items were generated.

The questionnaire consist of all the initial 136 items generated, the value of 0.84 was obtained initially, then items that are less than 0.3 was deleted after which a value of 0.89 was obtained for the pilot study.

Procedure

For adequate selection of item, mean, standard deviation (to check for floor and ceiling effect), inter-item correlation and item-total analysis was computed in-order to remove nonresponsive items and to reduce item reluctance. Out of the 110 initially generated items, only 71 items survived this section. The justification for removing the items was that the items were lower than 0.3 under item-total correlation.

The copies of the questionnaire were carefully administered to the selected participants who were requested to fill it in their various tertiary institutions, within Ibadan metropolis. The participants were briefed on their needs to provide correct responses especially as they relate to them. The data collection was carried out within one week during which 400 copies of the questionnaire were administered. However, only three hundred and sixty-two (362) representing 90.5% questionnaires were returned in good state; and hence subjected to analysis.

Data analysis

The collected data were analysed with techniques like Exploratory Factor Analysis (EFA) using principal axis factor analysis to examine the factorial structure of constructs of emotional intelligence. Pearson's Product Moment Correlation was used to obtain inter-correlations of factors and for cross validation with the existing measure of emotional intelligence, reliability- Cronbach alpha was used to examine item-total correlation.

Findings and Discussion

Table 1: Mean, Standard Deviation and Total-Item Correlation for Each of Item on Multi-Dimensional Emotional Intelligence Scale

S/N	Items	Mean	Std. Dev.	Item-Total Correlation
	Mood regulation			
1	I can't manage a bad mood to run my day*	3.14	1.19	.48
2	Often time my mood overwhelmed me*	2.26	1.27	.64
3	My feelings are so intense that often make me disturbed*	2.80	1.37	.59
4	Often time my emotion interfere with my actions*	2.72	1.22	.55
	Interpersonal Skill			
5	I could be describe as a good team leader	3.84	1.05	.45
6	My social abilities are good	3.66	1.14	.42
7	I can tolerate negative social interactions from another	3.53	1.17	.40
8	I often sense the positive and negative feelings of others	3.95	1.05	.33
9	I have social skills to handle interpersonal conflict	3.77	1.06	.5 4
10	I can manage people with different type of personality	3.98	0.99	.58
11	I am so concern about others welfare	4.11	0.91	.47
	Internal Motivation			
12	I am always very happy about pursuing my goals	4.46	0.70	.63
13	I have a driving force towards achieving my goals	4.42	0.69	.60
14	I invest all my effort to make sure I achieve my goals	4.27	0.85	.52

15	I consistently pursue my set goals	4.24	0.88	.55
16	Most times I feel enthusiastic doing my work	4.21	0.84	.50
17	I don't relent until I accomplish my aim	4.13	0.94	.66
18	I don't wait for incentive before doing any task	4.09	0.92	.60
19	Encouragement keeps me going	4.28	0.79	.50
20	My drives are always on motion towards achieving	4.15	0.95	.59
	Self-Awareness			
21	I don't need people to tell me about my actions	3.92	1.00	.38
22	I relate with others in different ways	3.57	1.19	.43
23	Most of my actions are not deliberate	4.00	0.85	.34
24	I recognize when my feelings are bad	3.76	1.12	.47
25	I do not let my mood affect my actions	3.55	1.24	.44
	Stress Tolerance			
26	I easily brake down with hard-work*	3.28	1.32	.60
27	Bad news easily get me down*	2.80	1.27	.54
28	I become upset on trivial things*	3.32	1.25	.60
29	I am always overwhelmed with stress *	3.18	1.29	.47
	Optimism			
30	I foresee positivity in every challenge	3.98	0.88	.46
31	Problems are stepping stone to greater height	4.08	0.91	.55
32	I start each day with a hope of success	4.22	0.69	.63
33	I always expect the best out me	4.29	0.76	.60
34	I have a strong belief to achieve all my target	4.13	0.91	.54
35	I am all about making great success	4.20	0.99	.57
36	I can never fail with my goals	4.11	0.97	.48
	Assertiveness			
37	I always try to find out why things	4.28	0.93	.40

	happened			
38	I like to pay my attention to details	4.01	0.99	.60
39	I question peoples action without hurting them	4.24	0.91	.61
40	I see myself as a great achiever	4.83	1.15	.39
41	I am sure of the best out of me	3.82	1.02	.33
42	My achievement always comes first	4.09	1.03	.48
43	I work out to bring out the best in me	3.90	0.81	.63
44	I am confident to achieve my goals	4.13	0.91	.62
45	My drives are towards getting to the top	4.18	1.05	.32
	Flexibility			
46	I have many ways of doing things	3.97	1.09	.70
47	Making use of others opinion is my pattern	3.96	1.10	.70
48	Am always ready to learn something new	3.56	1.15	.48
	Problem Solving			
49	I have a plan B for most of my activities	4.00	0.90	.30
50	I do away with any form of argument	3.80	1.17	.30
51	Peacemaker is my label	3.97	1.03	.58
52	I always find a means out of every difficulties	3.98	0.94	.60
53	I managed conflict in an unavoidable situation	3.81	1.10	.52
54	It is actually good to solve others problems	4.05	0.91	.55
55	I am very prepared to handle any problem that may arise	3.96	0.97	.56
56	I expect the good and the bad so I prepare for both	3.99	0.92	.40
57	I can easily help others	4.03	1.00	.59
	Social Awareness			
58	I know the best time to join others conversation	3.88	1.02	.37
59	Most things done by others are not	3.77	1.02	.46

	new to me			
60	I have a perfect relationship with others	3.66	1.14	.40
61	I console other in their distress	3.91	0.92	.48
62	I can read peoples need from their expression	3.84	0.94	.41
63	I mix up with people to learn from them	4.06	0.99	.55
64	I have the skill to make others arrived at success	3.83	1.06	.36
	Emotional Creativity			
65	My positive emotions ushers me into new ideas	4.30	0.84	.43
66	New feelings comes from my good mood	4.20	0.77	.49
67	Good fortune comes with positive feelings	4.18	0.92	.57
68	I get better ways of achieving my goals with good mood	4.25	0.83	.38
69	I have a clear vision of the future with good feelings	3.91	0.97	.40
70	My emotions are sources of inspirations	4.21	0.70	.42
71	A silent mood leads me to great imaginations	4.04	0.90	.34

*Reversed items

Out of all the 110 items developed, only seventy-one (71) items have total item-correlation greater than 0.3. Items with low or negative total item-correlation were removed. 6 items were removed from Mood Regulation; 3 was removed from Inter-Personal Skills; 1 from Internal Motivation; 5 from Self-Awareness; 6 from Stress Tolerance; 2 from Optimism; 1 from Assertiveness; 7 from Flexibility; 1 from Problem-Solving; 3 from Social-Awareness and 3 from Emotional Creativity. The remaining factors were therefore considered to be good and were used for the factor analysis.

Factor Validity

To certify the assumption of factorability, Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity were conducted. KMO=.711 and Bartlett's Test of Sphericity (Approx. Chi-Square (2556) = 16623.412, $p < .05$). This revealed that the sample size was adequate enough KMO >.6 (Field, 2000). For the fitness of the scale, Bartlett's Test of Sphericity is significant. The overall implied an acceptable factorability potential.
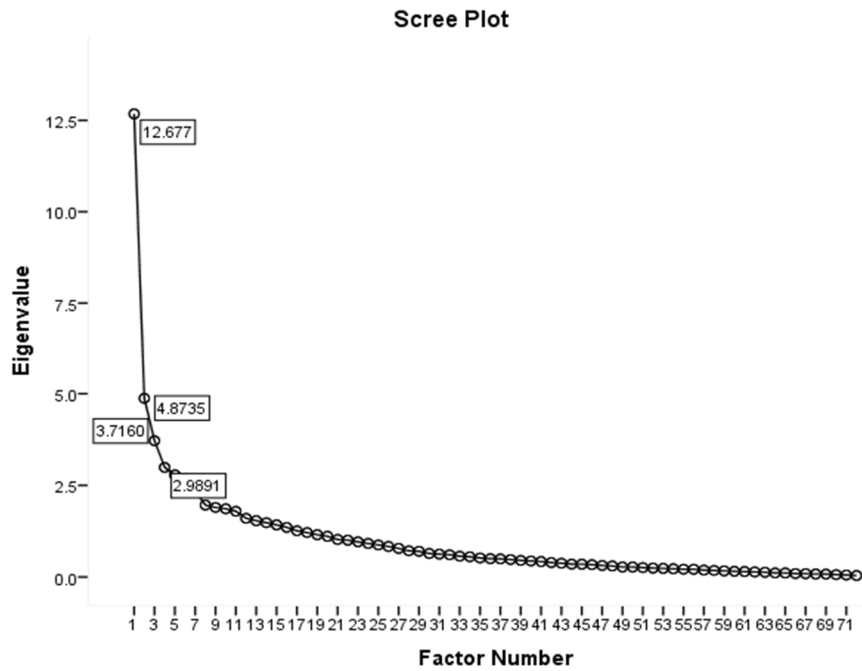
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Figure 1: Scree plot showing total variance associated with each factor

Exploratory Factor Analysis (EFA) rotation was conducted on all 110 items of the Multi-dimensional Emotional Intelligence Scale on the eleven factors (mood regulations, interpersonal skills, internal motivation, self-awareness, stress tolerance, optimism, assertiveness, flexibility, problem solving, social awareness and emotional creativity). Factor solutions were based on the following criteria: eigenvalues of 2.0 (although it should be 1.0) or greater, factor loadings of .40 or greater

and rotated component (Cattell, 1978; DeVellis, 2003). The majority of the items initially merged into eleven factors, corresponding with the postulated factor structure. Items that loaded into factors outside of the ten had loadings of less than 2.0. As a means to "clean up" the model, a scree plot test was conducted to determine the number of factors retained in the scale; results suggested that 4-factor models were the most appropriate fit (DeVellis, 2003).

Components of Multi-Dimensional Emotional Intelligence Scale (MEIS)
In order to assess the structure of Multi-Dimensional Emotional Intelligence Scale (MEIS), 71 items were factor analysed using principal axis factoring analysis with oblimin rotation and Kaiser Normalisation.

Table 2: Showing the Total Variance Explained by the Factors Extracted

Factors	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	12.677	17.607	17.607	12.677	17.607	17.607
2	4.874	6.769	24.376	4.874	6.769	24.376
3	3.716	5.161	29.537	3.716	5.161	29.537
4	2.989	4.151	33.689	2.989	4.151	33.689
5	2.786	3.870	37.558	2.786	3.870	37.558
6	2.692	3.739	41.297	2.692	3.739	41.297
7	2.340	3.250	44.547	2.340	3.250	44.547
8	1.962	2.725	47.272	1.962	2.725	47.272
9	1.896	2.633	49.906	1.896	2.633	49.906
10	1.862	2.586	52.492	1.862	2.586	52.492
11	1.793	2.490	54.981	1.793	2.490	54.981

A factor analysis of four factors produced the cleanest factor structure for the 71-item scale, the four factor accounted for some percentage of variance respectively (17.607, 6.769, 5.161, 4.151) the factors combined accounted for 33.698 percent of the variance.

Table 3: Showing the Structure of Factor loading via the Extraction

	Component				
	1	2	3	4	Communality
ASS62	.612				.857
OP59	.609				.797
ASS63	.609				.748
PS84	.606				.596
ASS61	.578				.327
PS86	.573				.393
ASS67	.573				.656
ASS68	.572				.470
EC104	.550				.344
EC103	.546				.544
IM26	.545				.522
OP60	.533				.589
IM21	.531				.604
PS87	.523				.540
IM24	.518				.602
ASS69	.515				.553
EC102	.514				.630
F72	.513				.634
F71	.511				.566
PS85	.510				.431
OP56	.495				.612
SAW96	.492				.418
EC105	.491				.459
PS90	.486				.391
ASS66	.478				.503
IM25	.475				.615
PS83	.468				.545
IM22	.466				.616
ASS64	.451				.529
IM23	.449				.548

PS81	.448				.525
SAW91	.445				.566
SAW94	.445				.653
SAW95	.443				.618
OP57	.439				.581
IS18	.430				.619
EC108	.428				.644
IM28	.413				.563
IM29	.409				.593
SAW92	.395				.551
IS17	.381				.463
SAW93	.370				.616
IM27	.369				.526
IS11	.367				.709
PS82	.350				.630
OP53	.346*				.357
IS15	.343*				.397
EC107	.324*				.348
EC109	.316*				.481
MR4		.571			.306
MR5		.551			.496
SA37		.529			.717
MR2		.506			.530
ST43		.493			.550
ST48		.467			.599
MR1		.462			.533
OP55		.408			.478
OP54		.394			.718
SA31		.312*			.477
ST46			.434		.537
PS88			.409		.484
SAW98				.467	.555
SA38				.461	.429

SA34		.303			.505
F73	.402				.441
IS14				.392	.513
IS16	.355				.447
ST49			.331*		.518
IS12	.396				.581
MR10					.527
SA36					.499
ASS65	.351				.428

Extraction Method: Principal Axis Factoring (PAF)

After oblimin rotation 71 items loaded strongly above .4 (while 7 items were removed because they loaded below .35) on the four factors subscales (emotional creativity, social awareness, problem solving and assertiveness) of multi-dimensional emotional intelligence scale (certifying the rule of thumb). The communality reveals a range of common variance shared among the items of the scale, .306-.859 (from 30.6% to 85.7%).

Internal Convergence Validity
Table 4: Zero Order Correlation Showing Relationship among the Factors of Emotional Intelligence Scale

Factors of Scales.	Mean	Std.Dev	1	2	3	4
Emotional creativity (EC)	33.46	3.665	1.000			
Social awareness (SA)	23.11	3.838	.507**	1.000		
Problem solving(PS)	35.61	5.526	.558**	.495**	1.000	
Assertiveness(Ass)	36.74	5.449	.594**	.464**	.637**	1.000

*significant at 0.05 (2-tailed)

Table 4 reveals a significant relationship among the component of emotional intelligence scale, which indicates that the components converge within itself which is an evidence of internal convergence.

Convergent Validity

To establish the criteria for external convergent validity of multi-dimensional emotional intelligence scale (MEIS), the factors of MEIS was correlated with the factors of Schutte Emotional Intelligence scale (SEIS).

Table 5: Zero Order Correlation Showing Relationship between the Factors of Emotional Intelligence Scale and Schutte Emotional Intelligence Scale

Factors of Scales	Mean	Std.Dev	Emotional perception	Managing own-emotion	Managing others emotion	Utilizing emotion
Emotional creativity	33.4586	3.66456	.223**	.213**	.202**	.193**
Social awareness	23.1077	3.83843	.215**	.260**	.281**	.211**
Problem solving	35.6105	5.52609	.220**	.222**	.204**	.197**
Assertiveness	36.7424	5.44953	.233**	.255**	.202**	.175**
Schutte emotional intelligence scale		**Mean**	35.96	33.85	30.20	18.87
		St.DV	6.44	6.09s	5.28	3.75

*Correlation is significant at 0.05 (2-tailed)

Table 5 above reveals a significant relationship between multi-dimensional emotional intelligence scale and Schutte emotional intelligence scale. From the table it can be observed that most of the components that share the same definitions show increase relationship than factors that shares relatively different definition. Social Awareness of (MEIS) showed moderate relationship with Managing emotion in others of (SEIS) r(360)= .281, P<.05, Emotional Creativity significantly correlated with Utilizing Emotion; r(360)= .193, p<.05, Problem Solving significantly correlated with Managing Own Emotion; r(360)= .222, p<.05, Assertiveness correlated with Emotional Perception; r(360)= .233, p<.05. This implies that the factors of Muiti-dimensional

Emotional Intelligence Scale (MEIS) significantly correlated with Schutte's et al. Emotional Intelligence Scale (1998). This therefore satisfies the condition for convergent validity.

Reliability of the Scale

To examine the internal consistency of the emotional intelligence scale especially the surviving items, cronbach alpha was computed for each of the components of the scale after that was the final computation still using Cronbach alpha and spearman correlation coefficient.

Table 6: Reliability Coefficient of Emotional Intelligence Scale

	Components of the scale	Cronbach alpha	No of items
1	Emotional creativity	.787	49
2	Social awareness	.725	9
3	Problem solving	.754	2
4	Assertiveness	.778	4
Total	General reliability (Emotional Intelligence scale)	.804	64
	Reliability Coefficient rho	.891	

   *Significant ≥ .7

Table 6 reveals reliability coefficient satisfying the criteria specified by Cohen (1988) that says a good reliability coefficient should be 0.7 and above. This therefore indicate that, Multi-Dimensional Emotional Intelligence Scale is reliable enough to be used.

Furthermore, to establish the validity of (MEIS) over time, a sample of 100 young adults was engaged for test-retest administration with interval of two weeks, with this sample, the reliability coefficient of MEIS were obtained as follows: Emotional creativity r= .801, Social Awareness r= .823, Problem Solving r= .789 and Assertiveness; r= .812.

Discussion

The development of instrument was anchored on the theoretical postulation of Salovey and Mayer's theory of Emotional intelligence theory (1990). In relation to the characteristics of Multi-Dimensional Emotional Intelligence Scale, the mean, standard deviations and item-total correlation for all the sub-scale were all obtained. This shows that factors like emotional creativity, self-assertiveness, social awareness

and problem solving are a number of the factors that probably describe emotional intelligence among young adults. The findings also revealed a significant relationship among all the items of emotional intelligence as this means that the items are good to measure emotional intelligence among young adults. Many studies found that emotional intelligence will have a major impact on varied components of everyday living (Palmer, Donaldson and Stough, 2002) Higher emotional intelligence was a predictor of life satisfaction, people with higher emotional intelligence were also more likely to use an adaptive defense style and so exhibited healthier psychological adaptation (Pellitteri, 2002).

Exploratory factor analysis indicated that four component structure best represents emotional intelligence among young adults. The four factors adequately explained the internal consistency reliabilities of the self-developed multi-dimensional emotional intelligence scale. The following aspects were well represented by four structures: Emotional Creativity (EC), Social Awareness (SA), Problem Solving (PS) and self-assertiveness (SAS). The study is in consonance with Gardner and Moran (2006) who found that there's a positive relationship between understanding others feeling and social support. Adults with emotional intelligence skills were better than others, alongside with increasing age and experiences extend from childhood to adulthood (Goleman, 1998). The indicative factors of multi-dimensional emotional intelligence scale are subjected to psychological research studies which can be as a result of its help in evaluating existing measures of emotional intelligence and develop a new measure of young adult's multi-dimensional emotional intelligence scale. Emotional intelligence appears to be associate applicable phenomenon in various contexts like psychiatry, management, education, arts and nursing (Ciarrochi et al., 2002; Dulewicz et al., 2003; Pau and Croucher, 2003; Akerjordet and Severinsson, 2004).

Kauts and Saroj (2012), Slaski and Cartwright (2002) also found that stress is influenced by an individual's ability to manage and control their emotions in the workplace. Researches are conducted to understand whether or not emotional intelligence plays a prominent role in overcoming stress and stress related outcomes and it is been established that people who scored high in emotional quotient, experienced better health and well-being, displayed better

management performance and suffered less subjective stress and displayed better work performance.

Findings of this study also revealed that there were significant relationships among all the components of multi-dimensional emotional intelligence scale (MEIS), it had been discovered that the components of the self-developed scale converged within themselves. The zero order correlation reveals a significant relationship among the component of multi-dimensional emotional intelligence scale; this indicates that the components converge within itself which is also a proof of internal convergence. The finding found support in Lemos and Verssimo (2014) who also found specific pattern of relationship among emotional intelligence components.

The findings of the study revealed that the components of the self-developed emotional intelligence scale and Schutte's emotional intelligence scale converge within themselves, therefore there were significant relationship among the components of Multi-dimensional Emotional Intelligence and Schutte's Self-report emotional intelligence scale, the matrix showing relationship between Multi-dimensional Emotional Intelligence (MEIS) and existing Schutte's Self-report emotional intelligence scale, all are positive, moderate and significant. That is, each of the factors converged around other similar construct of the measuring instrument. This is in consonance with the findings of various authors who evaluated emotional intelligence construct with the personality dimensions (Godse and Thingujam, 2010; Ramo, Saris and Boyatzis, 2009; Van Der izzard, Thijs and Schakel, 2002). Also, Bar-On and Goleman models of emotional intelligence are found closely related to personality theory. Each model has components and sub-components of their theory of emotional intelligence that are similar to dimensions which have been previously studied under personality theory. Bar-On's sub-components of self-assertiveness, interpersonal effectiveness, empathy, impulse control, social responsibility and reality testing have all been considered parts of personality inventories.

The finding of this study justifies the fact that four sub-scales are reliable. This means that the scale measure what it purports to measure and can also stand the test of time. Reliability is commonly used and it explains Fraction of variance not due to measurement error. The reliability of the scale and sub-scale were measured with Cronbach's alpha and test-retest coefficient. This was supported by

reliability of Schutte's self-report emotional intelligence scale. It is practically necessary to obtain the reliability of a scale especially due to the effect of measurement errors.

Conclusion

Reports showed that the psychometric properties for Multi-Dimensional Emotional Intelligence Scale are the same as alternative scales previously reported. The findings showed that Multi-Dimensional emotional Intelligence Scale is internally, externally consistent, have good test of reliability among its factors and also converged with Schutte's Self-report emotional intelligence Scale. Emotional intelligence factors: emotional creativity, social-awareness, problem solving and self-assertiveness are major attributes an individual will possess for being emotion intelligent as they contribute to healthy and successful living within oneself and others. It also indicates that emotional creativity may be a strong factor of emotional intelligence as several alternative factors (Assertiveness, Optimism, problem solving, Internal-Motivation, Flexibility, Interpersonal-Skills and Social-Awareness) loaded under these factors as this can be a new discovery as factor of emotional intelligence.

Implications of the Study

To boost the level of emotional intelligence among young adults, Counsellors, Psychologists, Health workers, professionals and Human resource personnel are encouraged to make use of the various dimensions of emotional intelligence as a whole and observe factors that are responsible for emotional hijack in individuals.

It would provide ways of assessing the level and competencies of emotional intelligence of individuals for correct diagnosing and to inform psychological or counselling intervention for better functioning and performance.

Individual young adult ought to learn from the factors of emotional intelligence that would enable them to bear in mind, control and manage their own feelings and others.

If the attributes and competencies of emotional intelligence are included in the school curriculum it will enable the students to learn how to better understand themselves and others; and to be able to perform effectively in the larger society.

Recommendations

Government at all levels, stakeholders, parastatals ought to build adequate provision for certified Counselling Psychologist at all levels of education and in private settings to examine and improve the level of emotional intelligence needed to be a good leader for better performance and functioning.

Young adults should also visit the counselling psychologist to take a test of emotional intelligence to determine their level of emotional intelligence.

School administrators are inspired to inculcate and include in the school curriculum the attributes and competencies of emotional intelligence as this might enable students to learn how to better understand themselves and others; and to be able to perform effectively in the larger society.

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