

## **Development and Validation of a Self-Concept Scale for Individuals with Visual Impairment in Basic Schools in North Central Nigeria**

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### **Abstract**

*This is an instrumentation and cross-sectional research that was carried on the development and validation of self-concept scale for individuals with visual impairment in basic schools in North Central Nigeria. The study examined the need to develop and validate a scale that will be used to measure the self-concept of individuals with visual impairment under three domains; physical self-concept, emotional self-concept and ideal self-concept. The study was based on two (2) research questions. A sample of 398 individuals with visual impairment were selected from basic schools in North Central Nigeria. Data was collected through a self-developed questionnaire patterned along 5-point Likert scale ranging from Always False, (AF), Mostly False, (MF), Partly False/Partly True, (PF/PT), Mostly True, (MT), and Always True, (AT). Kaiser-Myers-Olkin's (KMO) measure of sampling adequacy and Barlett's test of sphericity were used to assess the suitability of the data for factor analysis. Also, the principal component analysis (PCA), was conducted to confirm the appropriate number of factors to be extracted and Kaiser criteria of even value > rule and the scree plot test were used as criteria for extraction of factors. The findings revealed that SCSIVI for physical self-concept analysis yielded a four-factor structure loading of >0.40, SCSIVI for emotional self-concept was left with 19 items and SCSIVI Barlett's test of spherical for one scale was highly significant ( $P < 0.05$ ). Based on the conclusion, it was recommended that further validation studies is required to confirm the reliability and validity of the identified factor structures for physical emotional and ideal self-concepts.*

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### **Introduction**

Primary education is the first level of basic education, while lower secondary school is the second stage, as per the International Norm Classification of Education (ISCED) norm (UNESCO, 2003). It includes a broad range of informal and non-formal public and private activities designed to fulfil people of all ages' basic learning needs. The UBE Act of 2004 expanded the definition of basic education to include early childhood development and care, nine years of formal schooling (six years of primary and three years of junior secondary school), adult literacy and non-formal education, skill development programs, and education for special populations like migrants and nomads, women and girls, street children, disabled children, and almajirai.

The goal of basic education is to guarantee the development of the civic ideals and ethical principles necessary for creating a strong basis for lifelong learning, as well as reading, numeracy, manipulation, communication, and life skills. The advantage of receiving basic education for someone with visual impairments is that it allows them to engage in social, recreational, and educational activities alongside others who might not have visual impairments. Basic education emphasizes specialized training

in braille literacy and adaptive skills that can facilitate learning in addition to traditional academic subjects. This allows each student the same opportunity to acquire the same early literacy skills as their peers and to master coping mechanisms that can improve their development of self-concept.

The limiting of the visual system's actions: and functions is known as visual impairment, In contrast to sighted people, a person with a vision impairment is not less valuable or significant because of these systemic limits or activities. Visual impairments can result from a variety of disorders, and they 'can manifest in different ways. Common conditions that produce impairments include near and farsightedness, although more complex conditions like congenital cataracts and strabismus can also create impairments. IDEA (2018) lists various symptoms that may point to a vision impairment, albeit the causes are different. These include atypical habits (such as closing one eye or constantly massaging the eye), abnormal eye movements (like eyes that do not move together or appear unfocused), and sitting.

Concerning another variable is Self-Concept. According to Frager and Fadima (2005), the self is the most significant personality archetype and the most challenging to comprehend. It is referred to by the writers as "the archetype of psychological order and the totality of personality," which is the primary archetype. The self is the synthesis of the conscious and unconscious, representing the balance and harmony of the several conflicting aspects of the psyche. It is a process that starts to take shape in early life as kids learn to navigate a range of settings, tasks, and experiences. Nonetheless, since people gain new knowledge, abilities, and experiences throughout their lives, their growth and development do not stop in childhood.

Self-concept is an individual's perception of their qualities, flaws, and position in the world. It also addresses how a person thinks about and assesses themselves. According to Cooper-Smith (1967) and Rosenberg (1965); early research on self-concept was uni-dimensional; however, more recent studies (Martins- & Hal, 1995; Russell, 2003) have demonstrated that self-concept is multi-dimensional. A person's ability to achieve in life cannot be seriously compromised if their self-concept is low. An individual's self-concept plays a crucial part in driving their behaviour towards leading a productive and healthy existence within society. An individual's life experience is important in determining the quality of their self-concept.

A person with a visual impairment must have a self-concept, and these self-concept scales were created in the same manner as previous instruments used to assess the self-concept of people without visual impairments. In the 'context of this study, "development" refers to the act of producing, building, and crafting which has to do with the procedures to be followed when creating an instrument. The scale will be developed following the established protocol that defines dependable; research instrumentation. This may entail creating new items or modifying pre-existing self-concept scale items, as long as test construction components are used. The five subscales that make up the Self-Concept Scale for Individuals with Visual Impairment: (SCSIVI) will be created by determining the subject area, developing.

Validity and reliability are the two rigorous validation methods that a self-concept scale must go through to be deemed standardized and acceptable. Credibility and standard compliance go hand in hand with validation. Validation serves to support and validate the validity of the self-concept scale. In other words, it is a means of assessing conformance with standards. As to Colman's (2003) definition, validation refers to the act or procedure of conferring validity, endorsing something, or verifying that it fulfils specific requirements. The process of proving an instrument's 'validity is known as validation in the discipline of psychometrics. It is a tool for figuring out how much confidence may be placed in the new self-concept scale to perform what. This is to say that, when a measurement lacks validity and credibility, the result of what is being measured will not in any way be relied upon. Therefore, validity is relative to specific purposes. and must measure what it is supposed to measure.

Another validation component is reliability, which is the consistency or dependability of an

instrument on a scale. It is a byword for dependability, accountability, and reliability. In psychometrics, reliability refers to a measure's general consistency. It is represented by a correlation coefficient and pertains to measurement consistency. Stability and consistency in measurement are important aspects of reliability. The degree of error-free scoring is what matters (Anikweze, 2013). "Describes the internal consistency and stability with which a measuring instrument or scale performs its function; corresponding roughly to the everyday concept of accuracy," is how Colman (2003) defines dependability. When repeated measurements of an instrument consistently produce, the same findings, it is considered dependable.

Factor structure which is the correlational relationship between several variables that are set to measure a particular construct will be used in the research work. This will help to understand whether there will be differences in factor 'structure across the instrument whether the psychometric properties of the instrument will be accepted or removed. This will also be used to predict the items generated for the new scale; Self Concept Scale for Individuals with Visual Impairment (SCSIVI).

Efforts have been put in place to address the challenges of individuals with visual impairments such as the provision of scholarships for them to study, establishment of schools that handle individuals with special needs, training of teachers who wish to handle individuals with visual impairments, provision of materials such as Braille to the schools for effective teaching and learning and creation of conducive learning environment that takes care of individuals with visual impairments.

The consequences of not providing a conducive learning environment and materials for effective teaching and learning of individuals with visual impairments is that they will not be able to further their education and function effectively in society like other individuals with vision, these therefore, calls for the need to develop a self-concept scale for use by both teachers and students for effective improvement of the self-concept of individuals with visual impairment and hence the need for a study on the development and validation of a self-concept scale for individuals with visual impairments in basic schools in north-central Nigeria. The researcher is not aware of any current effort aimed at solving the problem of self-concept of individuals with visual impairments through the development and validation of a scale, hence the need for the study to cover the gap. The broad question for this study is; 'what is the psychometric properties of the self-concept 'scale developed and validated for individuals with visual impairments?

#### **Research Questions**

1. What is the factor structure of the subscales of SCSIVI?
2. What are the major characteristics of the SCSIVI for assessing individuals with visual impairment?

#### **Methodology**

This study used an instrumentation and survey research design. This study's instrumentation design was employed. This design was chosen because it was applied in north-central Nigerian basic schools to create a self-concept scale for visually impaired students. All visually impaired people attending basic schools in North Central Nigeria for visually impaired children made up the population. There are 398 pupils who are visually impaired. All 398 visually impaired students from all 13 special schools in North Central Nigeria comprised the study's sample. Data was collected through a self-developed questionnaire patterned along a 5-point Likert scale ranging from Always False, (AF), Mostly False, (MF), Partly False/Partly True, (PF/PT), Mostly True, (MT), and Always True, (AT). Kaiser-Meyer-Olkin's (KMO) measure of sampling adequacy and Bartlett's test of sphericity were used to assess the suitability of the data for factor analysis. The KMO index ranges from 0 to 1. In the interpretation of the result, if the value is less than 0.50, the data will not be considered suitable for factor analysis, but if close to 1, it will be considered suitable, (Field, 2000). Abarghoie, Khamiripoor, Hosseini, Esmaeili and Abarghoie 2002) recommended factor loading of 0.4 and above as a measure for accepting any item as valid. Therefore,

items loading less than 0.4 will be excluded and regarded as complex or impure.

## Results

### Research Question Two

What is the factor structure of the subscales of SCSIVI?

#### The KMO Index for Physical Self-Concept

Bartlett's test of sphericity should be 'significant ( $p < 0.05$ ) for factor analysis to be suitable. Table 1 shows that the KMO index for Physical. Self-concept was .722, indicating that the data is factorable. The Bartlett's test for Physical. Self-concept is highly significant ( $p < 0.05$ ), so factor analysis is appropriate.

**Table 1 Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity for Physical Self-Concept**

Measuring of Suitability		Values
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.722
Bartlett's Test of Sphericity	Approx. Chi-Square	1066.307
	df	406
	Sig.	.000

Also, the principal component analysis (PCA),: was conducted to confirm the appropriate number of factors to be extracted and the Kaiser's criteria of eigenvalue > 1 rule and the scree test were used as criteria for extraction of factors. After running the PCA using 29 items, factors accounted for 69.95% variance, indicating that 9 factors loaded with eigenvalue greater than 1 are responsible for 69.95% of variations in students' response in terms of their Physical Self-Concepts. The summary is presented in Table 2:

**Table 2: Percentage Cumulative Variance for the SCSIVI for Physical Self-Concept**

Factors	Eigen value	% of variance	Cumulative %
1	6.496	22.401	22.401
2	2.880	9.93	32.333
3	2.267	7.818	40.15
4	1.802	6.21	46.37
5	1.735	5.98	52.35
6	1.49	5.15	57.491
7	1.32	4.56	62.06
8	1.25	4.30	66.36
9	1.104	3.60	69.96

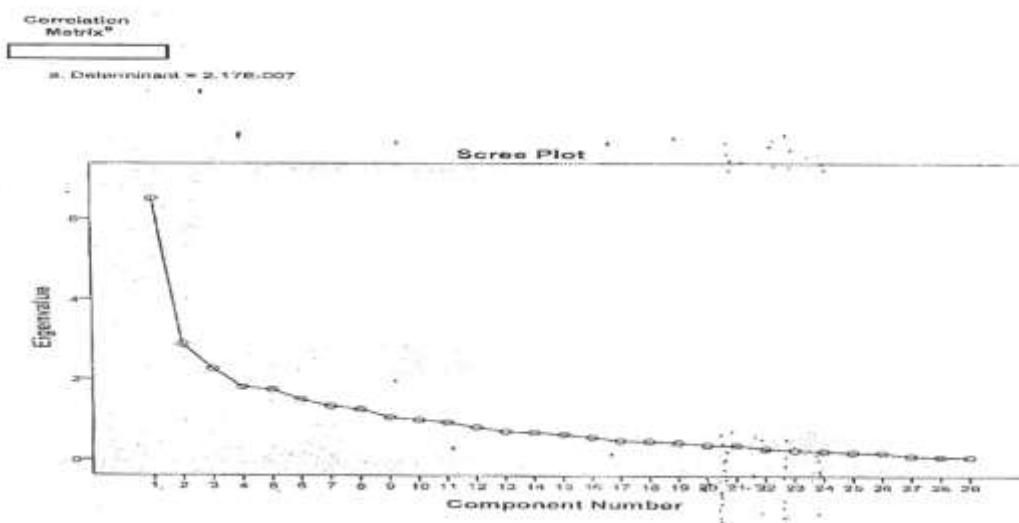


Figure 1 : Scree Plot for Physical Self-Concept

In the screen plot, the elbowing point occurred in the 4<sup>th</sup> and 5<sup>th</sup> components, accounting for 40.16% of the variance. The orthogonal varimax rotation method was employed to rotate the items on the SCSIVI. Items loading less than 0.4 were excluded, those that loaded on several factors and those that do not load on any factor were discarded. The SCSIVI Physical Self-Concept analysis yielded a three-factor structure loading of > 0.40. Items in the Physical Self-Concept 10,12, 14, 16 and 28 were considered complex and we discarded. Others that loaded on each factor: items (K2,3,4,6,7, 8, 11, 13, 17, 18, 19 and 20) loaded on factor 1. These items relate to physical strength and physical conditions. They are: "I can do most things myself", "I take part in athletics", "my problem with eyes does not affect my physical ability", "I have good physical body", "I consider myself to have appealing body shapes", "I am not lazy to do things at home", "I am happy with my physical self", "I have good physical appearance", "God created me special", "I wish I am sighted", "the sighted do not have better physical appearance than myself", and "I am happy with the way my body is". The factor was names "students' physical condition".

Three items were loaded on factor 2; which were items 15,22 and 27. The items were related to an individual's perception or description of physical self. These items are: "I cannot do something without sighted assistance", "I cannot walk without a cane", and "I wish I am taller than I am". These factors were labelled, students' perception of physical self". Four items (21, 25, 26 and 29) loaded on factor 3, the factor reported on physical appearance. These items are: in doing some things, my visual loss weakens me", "I am not lazy at school", "I wish I am bigger than I am", and "I like to wear glasses to improve my facial appearance". This factor was labelled "students' physical appearance". Three items (5, 23 and 24) loaded on factor 4. They are: "I can walk without a sighted guide", "I get angry when I lose in a game", and "I am weak in games". This factor was labelled "sports competence". Therefore, items on SCSIVI for Physical Self-Concept had 24 items loaded on four factors.

**Table 3: Rotated component matrix for 29 items**

Items	Component 1	Component 2	Component 3	Component 4
1	.607			
2	.693			
3	.663			
4	.406			
6	.797			
7	.814			
8	.641			
9	.699			
11	.666			
13	.451			
17	.416			
18	.537			
19	.515			
20	.504			
15		.655		
22		.491		
27		.516		
21			.607	
25			.495	
26			.534	
29			.406	.446
5				.467
24				.400
23				
25				

**The KMO Index for Emotional Self-Concept "**

The KMO index for Emotional Self-Concept was .670, considered adequate for factor analysis, indicating that the correlation matrix was factorable. The Bartlett's test of sphericity for the scale is highly significant ( $p < 0.05$ ), therefore, factor analysis is appropriate. The principal component analysis (PCA) was conducted and the Kaiser's criteria of eigenvalue  $> 1$  rule and the scree plot test were used to determine factors that will be extracted. The PCA was run for 28 items and 9 factors were extracted accounting for 71.27% variance. Factor 1 accounted for the highest percentage variance of 22.17% with eigenvalues of 6.21. Factor 2 followed with an 11.52 percentage variance with eigen of 3.23, while factor 9 contributed the lowest percentage variance of 3.63% with eigenvalue of 1.02.

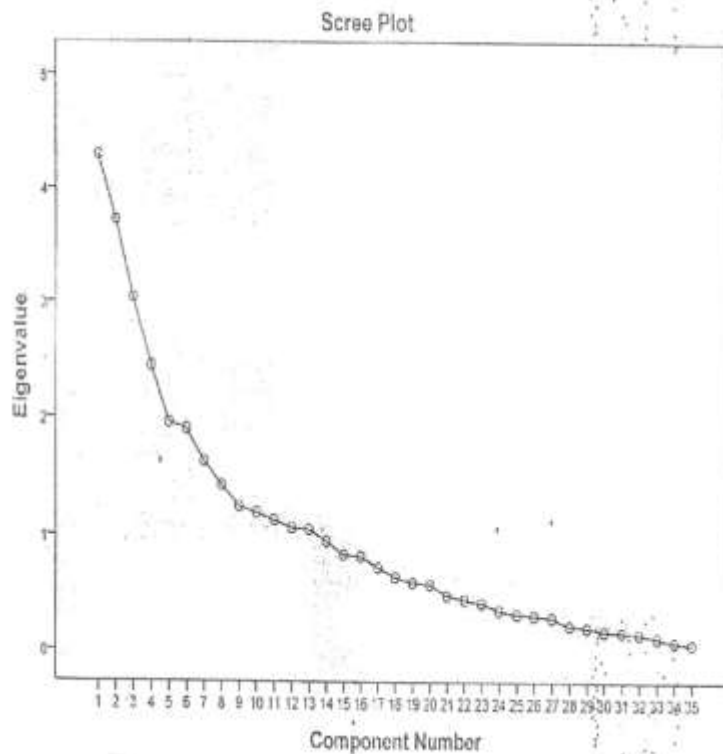
The summary of the total variance explained is shown in Table 4. The scree plot elbowing point occurred between 4" and 5" components, with 48.52% of the variance accounted for the five components. The scree plot is shown in figure2.

Table 4: Percentage Cumulative Variance for SCSIVI Emotional Self-Concept

Factors	Eigenvalue	% of variance	Cumulative %
1	6.21	22.18	22.18
2	3.23	11.53	33.71
3	2.20	7.86	41.57
4	1.95	6.96	48.53
5	1.52	5.43	53.97
6	1.33	4.74	58.70
7	1.30	4.66	63.36
8	1.19	4.28	67.64
9	1.12	3.64	71.27

Table 5 Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity for Emotional Self Concept

Measuring of Suitability		Values
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.664
Bartlett's Test of Sphericity	Approx. Chi-Square	1,116.147
	df	406
	Sig.	.000



**Figure 2: Scree Plot for Emotional Self-Concept**

The orthogonal varimax rotation method was used to rotate items on the SCSIVI. The result revealed that a five-factor structure and those items that do not load on any factor and those that loaded on several factors (8, 9, 10, 17, 18, 119; 23, 26 and 27), were considered complex and discarded, other factors were labelled based on the items that loaded on each factor. The SCSIVI for Emotional Self-Concept was left with 19 items after discarding the items that were not pure and they loaded on four factors, as presented in Table.

Seven items, (1, 2, 4, 5, 13, 14 and 24), were loaded on factor 1 of the SCSIVI on Emotional Self-Concept with component matrices. of 672,707, .432, 407, 425, 484 and .466 respectively. Four items (6, 7, 15, and 21) loaded; on factor 2 with component matrices of .697, .699, .643 and .422. Also, four items (11, 12 16 and 22) loaded on factor 3 with component matrices of .504, .543, .426 and 402. Lastly, four items (3, 20, 25 and 28), 1 loaded on factor 4 with component matrices of 414, 437, 405 and.539 respectively. Therefore, 19 items for emotional self-concept loaded on four factors. The items that loaded on factor 1 were related to 'motivation' and are; \*I am nervous when speaking in public", "I am not comfortable being in the company of sighted individuals, I feel anxious about my visual impairment", "I get angry easily", "my friends do not trust my judgments", "I prefer friends who have a visual impairment and I wish I can socialize easily".

Four items (6, 7, 15 and 21) loaded on factor 2 of the SCSIVI on Emotional Self-Concept. This factor was labelled 'emotional awareness. These items are: "I feel negative towards myself, "other people have a negative feeling towards me", I feel I am old fashioned", and "I know how to control my feelings". Four items (11, 12, 16, and 22) loaded on factor 3, these items were labelled 'feelings'. They are: I see



myself as a happy person", "I hate the way my culture treats me, "my religion influences my goals and values" and "I am compassionate towards myself and others", Four items (3, 20, 25 and 28) loaded on factor 4. These items were: "I know when I am happy", I have a good sense of judgment", "my visual impairment is a hindrance in my choice of friends" and; do not doubt my ability to do things". This factor was labelled 'evaluation'. Therefore, the SCSIVI or Emotional Self-Concept had 19 items and loaded on four factors;

Table 6: - Rotated Component Matrix for 19 Items

Items	Component 1	Component 2	Component 3	Component 4
1	.672			
2	.707			
4	.432			
5	.407			
13	.425			
14	.484			
24	.466			
6		.697		
7		.699		
15		.643		
21		.422		
11			.504	
12			.543	
16			.426	
22			.402	
3				.414
20				.437
25				.405
28				.539

### The KMO Index for Ideal Self-Concept

The KMO index for Ideal Self-Concept was .716, which was considered adequate for factor analysis. Bartlett's test of sphericity for the scale is highly significant ( $p < 0.05$ ), therefore, factor analysis is appropriate as shown in Table 7.

Table 7 Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity for Ideal Self-Concept

Measuring of Suitability		Values
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.716
Bartlett's Test of Sphericity	Approx. Chi-Square	1186.690
	df	595
	Sig.	.000

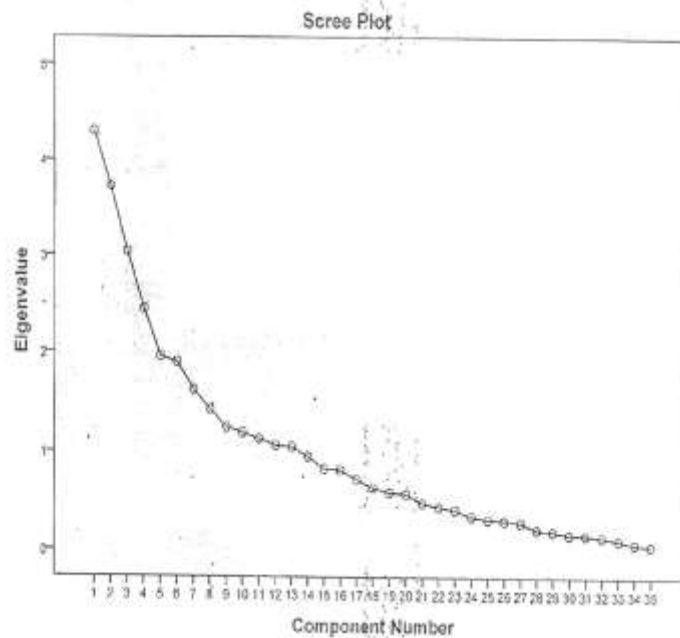
The principal component analysis (PCA), was run for 35 items and 13 factors extracted for 74.50%

variance. Factor 1 accounted for the highest percentage variance of 12.28% with eigenvalues of 4.30. Factor 2 followed with a 10.63% variance, with eigenvalues of 3.72, while factor 13 has a low percentage variance of 2.99% with eigenvalue of 1.05.

The summary of the total variance is explained in Table 8, The scree plot elbowing point occurred between 5h and 6" components with 44.15% of the variance accounted for by the five components. The scree plot is shown in Figure 4.

**Table 8:- Percentage Cumulative Variance for the SCSIVI for Ideal Self-Concept**

Factors	Eigen value	% of variance	Cumulative %
1	4.30	12.28	12.28
2	3.72	10.63	22.91
3	3.04	8.67	31.58
4	2.442	6.97	38.56
5	1.97	5.59	44.58
6	1.90	5.43	49.58
7	1.62	4.54	54.22
8	1.42	4.06	58.28
9	1.25	3.56	61.84
10	1.19	3.40	66.24
11	1.13	3.22	68.47
12	1.06	3.04	71.50
13	1.05	2.99	74.49



**Figure 4: Scree Plot for Ideal Self-Concept**

The orthogonal varimax rotation method was used to rotate items on the SCSIVI for Ideal Self-Concept. The result showed a five-factor structure and that those do not load on any factor and those that loaded on

several factors (5, 7, 10, 14, 18, 30, 32, 33, 34 and 35) were considered complex and discarded. Other factors were labelled based on the items that loaded on each factor. Seven items (1, 2, 3, 4, 6, 15 and 29) loaded on factor 1. These items are: "I see myself as a professor", "I see myself as a university graduate", "I can measure up with the standard set by my family", "I am committed to my goals and ideals", "I want my parents to treat me with respect", "I am aware of my limitations", and "I am a good planner in life". This factor was labelled 'school'.

Five Items (9,16,23,27 and 31) loaded on factor 2. These items are: "my parents treat me negatively", "I wish to marry a sighted individual", "I have the freedom/right to choose the course of my choice", "I like corruption because many are corrupt", and "I am outwardly motivated". This factor was labelled 'society'. Four items (8,19,21 and 22) loaded on factor 3. These items reported are "my siblings treat me nice", "I wish I could see", "I want to have control over my life", and "I am honest with myself". This factor was labelled 'family'.

Four items (11,17,20 and 25) loaded on factor 4. These items are: "I want to marry when I finish my education", "I can set realistic and achievable goals", "I wish I am not seen as asexual" and "I can be trusted by others". This factor was labelled 'society'. Four items (12, 24,26 and 28) loaded on factor 5. These items are "I want to be a politician", "I treat my family correctly", "I want to live a good Christian/Muslim life", and "I do like to match defeat with higher action". This factor was labelled 'society'. Therefore, the SCSIVI for Ideal Self-Concept was left with 24 items which loaded on five factors.

Table 9: Rotated Component Matrix for 24 Items

Items	Component 1	Component 2	Component 3	Component 4	Component 5
1	.824				
2	.897				
34	.695				
4	.628				
6	.400				
15	.507				
29	.483				
9		.428			
16		.418			
23		.514			
27		.441			
31		.462			
8			.568		
19			.414		
21			.572		
22			.549		
11				.558	
17				.607	
20				.419	
25				.423	
12					.403
24					.400

26	.451
28	.440

### Research Question Two

What are the major characteristics of the SVSIVI for assessing individuals with visual impairment?

**Table 10: Major Characteristics of the SCSIVI Physical Self-Concept**

Factor	Factor Label	Number of Items	Description	Items
1	Students' physical condition	14	I can dance well, I can do most things by myself, I take part in athletics, My problem with my eyes does not affect my physical ability, I have a good physical body, I consider myself to have an appealing body shape, I am not lazy to do things at home, I am happy with my physical self, I have good physical appearance, I like playing games with the sighted, God created me special, I wish I am sighted, the sighted do not have better physical appearance than myself and I am happy with the way my body is.	1,2,3,4,6,7,8,9,11, 13,17.18.19 and 20
2	Students' perception of physical self	3	I cannot do something without sighted assistance, I cannot walk without a cane and I wish I am taller than I am	15, 22 and 27
3	Students' physical appearance	4	My visual loss weakens me in doing something, I am not lazy at school, I wish I was bigger than I am and I like to wear glasses to improve my facial appearance.	21,25,26 and 29
4	Sports' competence	3	I can walk without a sighted guide; I get angry when I lose in a game and I am weak in games.	5, 23 and 24

Table 10 shows the major characteristics of SCSIVI for physical Self-Concept, including the rotated factors, factor labels and descriptions. From the result, it shows that 4 factors were retained. Factor 1, which was labelled "students' physical condition" had 14 items", which are; I can dance well, I can do most things by myself, I take part in athletics, My problem with my eyes does not affect my physical ability, I have a good physical body, I consider myself to have appealing body shape, I am not lazy to do things at home, I am happy with my physical self, I have a good physical appearance, I like playing games with the sighted, God created me special, I wish I am sighted, the sighted do not have better physical appearance than myself and I am happy with the way my body is. Again, factor 2 was labelled students' perception of physical self with 3 items which are: I cannot do something without sighted assistance, I cannot walk without a cane and I wish I am taller than I am. Factor 3 was labelled 'students' physical appearance" and had 4 items which, are: My visual loss weakens me in doing some things, I am not lazy at school, I wish I am bigger than I am, and I like to wear glasses to improve my facial appearance. Furthermore, factor 4 was labelled "sports competence with 3 items which are: I can walk

without a sighted guide, I get angry when I lose in a game and I am weak in games.

**Table11: Major Characteristics of the SCSIVI Emotional Self-Concept.**

Factor	Factor Label	Number of Items	Description	Items
1	Emotional Awareness	7	I am nervous when speaking in public, I am not comfortable being in the company of sighted individuals, I feel anxious about my visual impairment, my friends do not trust my judgment, I get angry easily, I prefer friends who have a visual impairment and I wish I can be socialized easily.	1,2,4,5,13,14 and 24
2	Feelings	4	I am negative towards myself, other people have negative feelings towards me, I feel I am old fashioned and I know how to control my feelings	6,7,15 and 21
3	Motivation	4	I see myself as a happy person, I have the way my culture treats me, my religion influences my goals and values and I am upset with my visual loss.	11,12,16 and 22
4	Evaluation	4	I know when I am happy, I have a good sense of judgement, my visual impairment is a hindrance in my choice of friends and I do not doubt my ability to do things.	3,20,25 and 28

Table 11 shows the major characteristics of SCSIVI for Emotional Self-Concept which includes the rotated factor label and their description. Factor 1 was the “emotional awareness”, with its description as “I am nervous when speaking in public, I am comfortable being in the company of the sighted individuals, I feel anxious about my visual impairment, my friends do not trust my judgment, I get angry easily, I prefer friends who have a visual impairment and I wish I can socialize easily. For factor 2, the label name is feelings”, with its description as; I am negative towards myself, other people have a negative feeling towards me, I feel I am old fashioned and I know how to control my feelings. Also, for factor 3, the label name is motivation” with its description as; I see myself as a happy person, I hate the way my culture treats me, my religion influences my goals and values and I am upset with my visual loss and lastly, the label name for factor 4 as evaluation”, with its description as I know when I am happy, I have a good sense of judgment, my visual impairment is a hindrance in my choice of friends and I do not doubt my ability to do things.

Table 12: Major characteristics of the SCSIVI for Ideal Self-Concept

Factor	Factor Label	Number of Items	Description	Items
1	School	7	I see myself as a professor, I see myself as a university graduate, I can measure up to the standard set by my family, I am committed to my goals and ideals, I want my parents to treat me with respect, I am aware of my limitations and I am a good planner in life.	1,2,3,4,6,15 and 29
2	Society	5	My parents treat me negatively, I wish to marry a sighted individual, I have the freedom/right to choose the course of my choice, I like corruption because many are corrupt and I am outwardly motivated.	9,16,23,27 and 31
3			My siblings treat me nice, I wish I could see, I want to have control over my life and I am honest with myself.	8,19,21 and 22
4			I want to marry when I finish my education, I can set realistic goals, I wish I am not seen as asexual and I can be trusted by others.	11,17,20 and 25
5			I want to be a politician, I treat my family correctly, I want to live a good Christian/Muslim life and I do not like to match defeat with a higher action	12,24,26 and 28

Table 12 shows the major characteristics of SCSIVI for Ideal Self-Concept which includes rotated factors, factor label and their description: Factor 1 was the school", with its description as; I see myself as a professor, I see myself as a university graduate, I can measure up with the standard set by my family, I am committed to my goals and ideals, I want my parents to treat me with respect, I am aware of my limitations and I am a good planner in life. For factor 2, the label name is "society", with its description as; My parents treat me negatively, I wish to marry a sighted individual, I have the freedom/ right to choose the course of my choice, I like corruption because many are corrupt and I am outwardly motivated. Factor 3, was labelled "family", with its description as; My Siblings treat me nice; I wish I could see; I want to have control over my life and I am honest with myself. Factor 4, was labelled "society", with its description as I want to marry when I finish education, I can set realistic and achievable goals, I wish I am not seen as asexual and I can be trusted by others. Lastly, factor 5 was labelled "society" with its description as: I want to be a politician, I treat my family correctly, I want to live a good Christian/Muslim life and I do like to Summary of Major findings

### Discussion

The findings on the factor structure of the subscales of SCSIVI revealed that the SCSIVI Physical Self-Concept analysis yielded a four-factor structure loading of  $\geq 0.40$ . Items in the Physical Self-Concept were left with 24 items, which were loaded on four components. The SCSIVI for Emotional Self-Concept was left with 19 items after discarding the items that were not pure and they loaded on four factors. The SCSIVI for Ideal Self-Concept was left with 24 items loaded on five factors which measures items on

school, society and family.

1. The SCSIVI Physical Self-Concept analysis yielded a four-factor structure loading of  $>0.40$ . Items in the Physical Self-Concept was left with 24 items, which loaded on four factors.

The findings on the major characteristics of SCSIVI for-Physical Self-Concept revealed that that 4 factors were retained. Factor 1, which was labelled "students' physical condition" had 14 items. Factor 2 was labelled students' perception of physical self with 3 items. Factor 3 was labelled 'students' physical appearance" and had 4 items and factor 4 was labelled "sports competence with 3 items.

The findings on the major characteristics of SCSIVI for Emotional Self-Concept showed that Factor 1 was the "emotional awareness", with its description as "I am nervous when speaking in public, I am comfortable being in the company of the sighted individuals, I feel anxious about my visual impairment, my friends do not trust my judgment, I get angry easily, I prefer friends who have a visual impairment and I wish I can socialize easily. For factor 2, the label name is feelings", with its description as; I am negative towards myself, other people have a negative feeling towards me, I feel I am old fashioned and I know how to control my feelings. Also, for factor 3, the label name is motivation" with its description as; I see myself as a happy person, I hate the way my culture treats me, my religion influences my goals and values and I am upset with my visual loss and lastly, the label name for factor 4 as evaluation", with its description as I know when I am happy, I have a good sense of judgment, my visual impairment is a hindrance in my choice of friends and I do not doubt my ability to do things.

The findings on the major characteristics of SCSIVI for Ideal Self-Concept revealed that Factor 1 was the school", with its description as; I see myself as a professor, I see myself as a university graduate, I can measure up with the standard set by my family, I am committed to my goals and ideals, I want my parents to treat me with respect, I am aware of my limitations and I am a good planner in life. For factor 2, the label name is "society", with its description as; My parents treat me negatively, I wish to marry a sighted individual, I have the freedom/ right to choose the course of my choice, I like corruption because many are corrupt and I am outwardly motivated. Factor 3, was labelled "family", with its description as; My Siblings treat me nice; I wish I could see; I want to have control over my life and I am honest with myself. Factor 4, was labelled "society", with its description as I want to marry when I finish education, I can set realistic and achievable goals, I wish I am not seen as asexual and I can be trusted by others. Lastly, factor 5 was labelled "society" with its description as: I want to be a politician, I treat my family correctly, I want to live a good Christian/: Muslim life and I do like to

### **Conclusion and Recommendations**

The analysis revealed a four-factor structure for the Physical Self-Concept, with 24 items loading on these factors. This suggests that individuals' perceptions of their physical self are multifaceted, encompassing various dimensions such as physical appearance, abilities, and health. Similarly, the analysis for Emotional Self-Concept resulted in a four-factor structure, with 19 items loading on these factors. This indicates that individuals' perceptions of their emotional self are also multidimensional, covering aspects such as emotional stability, self-esteem, and coping abilities. The following recommendations are made:

1. Conduct further validation studies to confirm the reliability and validity of the identified factor structures for both Physical, Emotional and Ideal Self-Concept. This could involve using larger and more diverse samples: to ensure the stability of the factor structure across different populations.
2. Consider refining the items in both the Physical, Emotional and Ideal Self-Concept scales to enhance their psychometric properties. This may: involve revising ambiguous or redundant items, as well as incorporating feedback from experts or target populations to ensure clarity and relevance.

match defeat with a higher action.

3. Develop guidelines for interpreting scores on the Physical -and Emotional, Self-Concept scales to assist researchers, practitioners; and individuals in understanding and contextualizing the results. This could involve providing descriptions of each factor and recommendations for addressing: areas of strength and areas for improvement.

4. Use the findings to inform the development of interventions aimed at enhancing individuals' physical and emotional well-being. Tailor interventions target specific dimensions of self-concept identified in the analysis, such as body image, self-esteem, or coping skills, to promote positive self-perceptions and overall psychological health.

5. Conduct longitudinal studies to examine changes in individuals' Physical and Emotional Self-Concept over time. This could provide insights into the developmental trajectories of self-concept and identify potential factors influencing its stability or variability across different life stages.

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