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# DREAM AND SLEEP EMOTIONS AND ANXIETY QUESTIONNAIRE - URDU TRANSLATION

Prof Dr. Farhana Kazmi<sup>\*1</sup>, Laiba Ejaz<sup>2</sup>, Ali Raza<sup>3</sup>, Zubia Gulfam<sup>4</sup>

\*1,2,3,4 Department of Psychology, Hazara University Mansehra

<sup>\*1</sup>s.farhanakazmi@gmail.com, <sup>2</sup>laibaijaz36@gmail.com, <sup>3</sup>aliraza10013@gmail.com, <sup>4</sup>ZubiaAwan471@gmail.com

#### **Corresponding Author: \***

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# ABSTRACT

In this study, Urdu translation of the Dream and Sleep Emotions and Anxiety Questionnaire (DSEA-D) has been done for the purpose of use with pertaining audience. The scale was originally developed by Mediano & Fernandez (2021). Translation and Validation were the two aims of the study. In first phase, DSEA was translated into Urdu with application of forward and backward translation method from English to Urdu. This ensured the questionnaires' cultural and language proficiency for Urdu language speakers. For the formation of DSEA-D Urdu version, validation of psychometric qualities was the second phase of study. The sample of (N=400) was taken from both clinical and non-clinical setting in order to balance the usage of the questionnaire. To evaluate Model fit, several goodness-of-fit indices were used for the data which includes adjusted goodness of fit, goodness of fit index, incremental fit index and comparative fit index. RMSEA was also computed. The result Exhibited that DSEA-D Urdu version has sufficient level of reliability (Cronbach's alpha = .87). Confirmatory factor analysis justified the factor structure identified in EFA indicating good fit of model (CFI = .953, GFI = .930, IFI = .953, RMSEA = .055, AGFI = .905). In conclusion, the DSEA-D in Urdu has all the required psychometric properties including reliability and validation which makes it useful for both clinical and non-clinical purpose. It is a useful tool for Urdu-speaking in assessment of Dreams.

Keywords: DSEA-D, Clinical/Non-clinical, Psychometric Features, Urdu Version.

# INTRODUCTION

Dreams are the experiences which we recall after waking up from sleep. Dreams known to be the images, thoughts, and feelings you experience while asleep. They can be intense or vague, joyful or frightening, and some may make sense while others seem random (Cherry, 2023). While dreaming is a form of consciousness known as phenomenal consciousness, where the content of our dreams makes up what we experience. Unlike awake experiences which occur when we are conscious, dreams happen during sleep (Revonsou el al., 2015). Samson and Abbas, (2023) study with non-clinical population supports the idea that dreams may serve to regulate emotions by associating potential threats with non-fearful contexts. This process can help reduce anxiety and negative emotions through emotional release or catharsis and vice versa.

The threat simulation theory (TST) explains the biological function of dreams. According to TST, in order to study the function of dreams we are required to make a detailed and systematic analysis of dreams content. We simulate the threatening situations in dreams to get prepared to upcoming crises (Valli & Revonsuo, 2009). Bradshaw el al.

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(2016) studied that there is significant correlation between threatening experiences during waking and dreams. Same threats are experienced in dream diaries which are observed during waking. The dream content identifies five separate issues including neural substrates, cognitive processes, evolutionary adaptive functioning, historically invented cultural issues and psychological meaning of the dream content (Domhoff, 2022).

A study conducted by Sikka et al. (2014) suggested that the content of dreams observed in dream reports of different participants proposed that the aspects of waking ill being and well-being are related to the negative dream affect related to anxiety. Similarly peace of mind is related to the positive dream affect. Dreams are associated more with conflict feelings as compare to intimate feelings. Thus, dreams affect the relationship conflicts among couples as the content experienced in dreams may affect the waking behavior (Selterman el at., 2014). In 2010, Cartwright concludes that dreaming plays a crucial role in regulating emotions, effectively reducing negative feelings by connecting troubling daytime experiences with earlier memories. Samson et al. (2023) investigated that dream characteristics in individuals with anxiety disorders compared to healthy individuals. Findings showed that anxiety patients' dreams had more complex content with higher levels of negative emotions, failures, and social interactions, highlighting distinct differences in dream content and structure between the two groups.

Shredl (2010) believes that Content analysis or assessment of dreams through verbal material is a crucial element and needs to be quantify for statistical analysis of dreams and to measure the uniqueness of the dreams of an individual can be capture. The application of dream content analysis is appreciable in analysis of dream series and correlational studies of dream content and psychometric measured waking life variables. The relation between the dream emotions and anxiety is a matter that lacks attention. However there are a number of researches which justify the relationship between dream emotion and anxiety.

There is a strong literature available that supports the concept of dreaming emotions and anxiety however, few instruments can be found that ISSN: (E) 3007-1917 (P) 3007-1909

measure aspects related to dreaming anxiety one of which is Van Dream Anxiety scale (VDAS) by Ağargün et al., (1999) and Mannheim Dream questionnaire (MADRE) by Schredl et al. (2014). The concept of the construction of Dream and Sleep Emotions and Anxiety scale (DSEA) was influenced by the theoretical work done by multiple theorists illuminating the importance of dreams and their impact on person's emotional state. However, there is a need to be more work done on this specific understructure.

The Dream and Sleep Emotions and Anxiety (DSEA-D) was designed to assess the predominant emotional valence in dreams through recall (Mediano & Fernandez, 2023). The scale consists of 24 questions measuring positive valence and negative valence of dreams. The aim of current study is to validate the Urdu translated version of DSEA-D. The aim of present study is translate DSEA-D in Urdu language as people in Pakistan speak many different local languages, but the official language is Urdu, which is also widely spoken in various states of India and by many people who work in countries like United Arabian Emirates, Saudi Arabia and few other European and English countries. This can make it challenging for people with low levels of education or no education to understand questions in English. Unfortunately, many diagnostic tools are not available in Urdu or other local languages. This creates a need for these tools to be translated into Urdu and other local languages so that people regardless of their education level, can use them. This translation would remove language barriers, promote diversity, and ensure that a wider range of people can contribute their opinions.

# Method sample

The sample of 400 volunteers were collected from Khyber Pakhtunkhwa, Pakistan including 213 male 53.3% and 187 female 46.8% from age 12 to 40 above. Participants were from both clinical and nonclinical population. The participants belonged to different levels of education from illiterate till Masters, in order to ensure the effectivity of the scale.

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### Measure

The DSEA-D is a questionnaire including 24 items created to measure dream sleep emotions and anxiety (Mediano & Fernandez, 2021). The scale includes items from negative valence and positive valence related to the emotions of dreams. The items are scored on a Likert scale ranging from "never or rarely" to "always or almost". PANAS scale is a self-report measure of affect. It consists of 20 items including 10 items from positive affect and 10 items from negative affect (Watson et al., 1988).

# Phase 1: Translation of DSEA-D in Urdu language

Six multilingual experts were consulted for both forward and backward translation. Firstly, the scale was translated from its original source language to intended target language of Urdu. In order to avoid alteration in literal meaning, the sentence was translated word by word. Furthermore, the sentences were then analyzed in order to ensure the effectiveness of structure and grammar of the sentences. The word choice was made carefully so that the meaning of original content should remain the same. The Urdu translation was then translated back to English keeping the original English version unfamiliar to the translators. The final translated version was then applied to sample of N = 400.

### Phase 2: Psychometric Properties of DSEA-D

Cronbach's alpha was used to analyze the scale's reliability and establish the psychometric features of the DSEA-D Urdu translation. DSEA-D factor construct validity was assessed using Analysis of Moment Structure (AMOS 26; CFA). Correlation with PANAS scale was used to determine the convergent validity of DSEA-D.

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#### Procedure

The sample was selected conveniently including both males and females from multiple age groups. Informed consent was taken from each subject. A pretest inquiry was done in order to ensure that the sample is taken from the required targeted population. Necessary instructions were given to the subjects before attempting the questionnaire. Data was collected through online sources as well as by approaching the subjects directly (hard and soft form). After collecting data, statistical analysis was applied to evaluate the psychometric properties of the test. The principle dimensions of scale and their factor structures were determined using EFA in SPSS 27. The factors evaluation and model fit was evaluated through CFA in AMOS 26. The correlation between DSEA-D and PANAS was done using Pearson product moment correlation.

# Results

The findings of the current study includes the reliability analysis of total scale which was 0.874. Alpha value for factor 1 is 0.893 and factor 2 is 0.870. The scale's primary dimensions and factor structure were determined using EFA. CFA is a common technique for factor analysis. CFA was applied to assess DSEA-D's factor structure. All observed factors showed acceptable standardized regression values or values greater than 0.35, based on primary criteria. Results showed that CFA factor loading for DSEA-D dimensions in the current study were greater than 0.5. Composite reliability was attained by merging co variance and variance of the true scores along with a composite of indicator variables, linked with paradigm and divided by aggregate of the whole variance. Convergent validity was evaluated using AVE formula. The factors are represented graphically below for thorough analysis.

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Figure 1: Graphical representation of two factors of Dream and Sleep Emotions and Anxiety Questionnaire.

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Table 1	able 1: Demographic characteristics of DSEA-D					
	Demographics	Frequency	Percentage			
	Gender					
	Male	213	53.3			
	Female	187	46.8			
	Age					
	12-18	19	4.8			
	19-25	194	48.5			
	26-35	137	34.3			
	35 +	50	12.5			
	Marital status					
	Unmarried	246	61.5			
	Married	148	37			
	Anything else	6	1.5			
	Education					
	No education	7	1.8			
	Matric	42	10.5			
	Intermediate	163	40.8			
	Bachelors	55	13.8			
	Masters	133	33.3			
	Frequency of					
	Dreams					
	No Dreams	28	7			
	1-2/week	162	40.5			
	3-4/week	142	35.5			
	4+/week	68	17			

Note: DSEA-D Dream and Sleep Emotions and Anxiety Questionnaire

# Table 2: Communalities values of Extraction Method by using Principle Component Analysis of DSEA-D.

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Item No.	values	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1	.640	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2	.654	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3	.742	
5    .522    .600    .600    .696     .696     .688     .688     .640     .526     .11      .749      .526      .502         .502	4	.603	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5	.522	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	6	.600	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	7	.696	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	8	.688	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	9	.640	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	10	.526	
12     .502       13     .644       14     .539       15     .591	11	.749	
13     .644       14     .539       15     .591	12	.502	
14 .539 15 .591	13	.644	
15 .591	14	.539	
10 10 11	15	.591	

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16	.654
17	.544
18	.562
19	.417
20	.544
21	.657
22	.611
23	.637
24	.557

Note: DSEA-D Dream and Sleep Emotions and Anxiety Questionnaire

Table 3; Factor loading of Exploratory Factor Analysis by using Varimax Rotation Analysis OF DSEA-D (N=400)

Item No	Factor 1	Factor 2
Item 1	.640	
Item 4	.749	
Item 7	.792	
Item 8	.784	
Item 9	.770	
Item 12	.633	
Item 13	.761	
Item 18	.578	
Item 22	.642	
Item 24	.612	
Item 2		.778
Item 5		.714
Item 6		.740
Item 11		.843
Item 14		.657
Item 16		.714
Item 17		.655
Item 20		.524
% variance	5.889	
Cumulative variance	60.500	
Kaiser-Myer-Olkin measures	.878	
Bartlett's Test of Sphericity	P=.000 < .05	

Note: DSEA-D Dream and Sleep Emotions and Anxiety Questionnaire

# Table 4; Model fit indices for DSEA-D (N=400)

		Goodness of fit Indices					
Models	$\chi^2(df)$	$\chi^2 \setminus (df)$	GFI	AGFI	CFI	IFI	RMSEA
DSEA-D	274.25(125)	2.194	.930	.905	.953	.953	.055
(Two							
factors)							
factors)							

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**Note:** DSEA-D Dream and Sleep Emotions and Anxiety Questionnaire; AGFI = Adjusted goodness of fit index, CFI = comparative fit index, IFI = Incremental fit index, GFI = Goodness of fit index, RMSEA = Root Mean Square Error of Approximation.

				Cronbach's alpha	CR	AVE
Construct		Items	Factor loading	(>.7)	(>0.6)	(>0.5)
		Item 1	.640	.893	.90	0.50
		Item 4	.749			
		Item 7	.792			
Factor 1		Item 8	.784			
(Negative		Item 9	.770			
Valence)		Item 12	.633			
		Item 13	.761			
		Item 18	.578			
		Item 22	.642			
		Item 24	.612			
Factor	2	Item 2	.778	.870	.80	0.501
(positive		Item 5	.714			
valence)		Item 6	.740			
		Item 11	.843			
		Item 14	.657			
		Item 16	.714			
		Item 17	.655			
		Item 20	.524			

# Table 5; CFA Reliability and Validity results for final Model of DSEA-D

Note: DSEA-D Dream and Sleep Emotions and Anxiety Questionnaire

#### Table 6; Correlation among DSEA-D sand PANAS

/ 8		
Scales	DSEA-D	PANAS
DSEA-D	1	.671**
PANAS		1

**Note:** PANAS = Positive and negative affect scale, DSEA-D = Dream and Sleep Emotions and Anxiety Questionnaire – Dreams. \*\*Correlation is significant at the 0.01 level (two tailed).

### Discussion

This study aimed to translate and evaluate the psychometric properties of Urdu translation of Dream and Sleep Emotions and Anxiety Questionnaire (DSEA-D). The scale was translated and validated for assessing Dream Emotions and Anxiety among general population in Pakistan. Most of the population in Pakistan are Urdu speakers and are unable to understand English vocabulary. The study was conducted in two phases, one including translation process and second including psychometric evaluation. The findings of the current study includes the reliability analysis of total scale which was 0.874. Alpha value for factor 1 is 0.893 and factor 2 is 0.870. Analyzing the chisquare test, the value of  $\chi^2$  /df is significant according to its acceptable standards which is 2.194 which is lesser than 3. The value of  $\chi^2$  /df 1 is considered as perfect, value lesser than 2 is considered as good, obtained value lesser than 5 is considered to be satisfactory and if the value is greater than 5, it is considered as unsatisfactory (Marques et al., 2014). The scale's primary dimensions and factor structure were determined using EFA. CFA was applied to assess DSEA-D's

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factor structure. Results showed that CFA factor loading for DSEA-D dimensions in the current study were greater than 0.5 being acceptable for model fit. The obtained value of AGFI was 0.905, GFI was 0.930, CFI was 0.953, and IFI was 0.953. These values are all higher than .90 which is standardized criterion for good model fit. RMSEA value was 0.055 for two dimensions of the scale and as a result all the three models showed very good values. So the DSEA-D and its two factors positive valence and negative valence indicates good values on all three models that is AGFI. IFI and parsimonious fit. Item 3, item 10, item 15, item 19, item 21, and item 23 were eliminated from the study because their factor loading values did not meet the criteria to be acceptable for further applications. The items that were eliminated neither fall in factor 1 nor in factor 2 as factor 1 indicated positive valence of dreams and factor 2 indicated negative valence of dreams. Item 3 statement manifest prosocial behavior, item 10 statement manifest nostalgia, item 15 statement manifest nightmares, item 19 statement manifest sexual desires, item 21 manifest aggression/impulsivity and item 23 manifest problem solving. These statements does not ally with positive or negative valence so their factor loading was weak and were not included in the part of study. The correlation of DSEA-D was obtained with positive and negative affect scale (PANAS) to determine the convergent validity which value was .671\*\* considered to be satisfactory correlation. As a result, the Urdu version of Dream and Sleep Emotions Anxiety Questionnaire carry all the psychometric properties necessary to be considered as a valid tool for further studies and implementation.

# Limitations and suggestions

Further studies should collect sample from all over Pakistan for better generalization and external validity. Divergent validity should be obtained in further studies.

### **Conclusion and Implications**

It is concluded that Urdu version of DSEA-D is reliable and valid tool for diagnosing dream emotions and anxiety. The scale is a helpful tool for both clinical and non-clinical use in order to understand the dream content and anxiety related to ISSN: (E) 3007-1917 (P) 3007-1909

dreams. The DSEA-D is a short and easily administered Scale that has good and satisfactory psychometric properties. The scale is an applicable tool for further studies.

### **Declaration of conflicting interest**

No conflict of interest was declared by the author(s) with regard to the research, writing and publication of this article.

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#### **Ethical statement**

Informed consent was obtained from each participant. Privacy of the participants was ensured. All data was kept confidential.

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