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Exploring the Psychometric properties of Comfort Zone Orientation scale

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Abstract

The purpose of this study is to assess the psychometric properties of the Comfort Zone Orientation Scale developed by Kiknadze, N. C., & Leary, M. R. (2021) in Asian context. For this purpose, a sample of university students (N = 130) from Srinagar, J&K, India was recruited through a convenience sampling method. Reliability analysis showed a moderate internal consistency with a Cronbach's alpha of 0.67 and Confirmatory Factor Analysis (CFA) identified a unidimensional structure, however some items demonstrated weaker loadings, suggesting further refinement of some items. Overall, the study provides preliminary evidence of the scale's applicability in the Asian context and lays the groundwork for further psychometric evaluations.

Key Words: *Comfort zone, Comfort zone orientation, Validity, Reliability*

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Introduction

Personal growth and development are the after product of many activities in life. Moving out of comfort zone is the main thing from those activities, especially in an ever changing world.The renowned psychologist Abraham Maslow said that “growth can be seen as an endless series of daily choices and decisions, in each of which one can choose to go back toward safety or forward toward growth” (Maslow, 1966). This observation explains the dynamic nature of personal growth and development. In this context, there is an important question to be answered- what factors drive individuals to make the pivotal decision to either remain within their safe zone or step into the unknown for personal growth.

The concept of comfort zone is defined as “a situation in which you feel comfortable and in which your ability and determination are not being tested” (Cambridge, 2025); “a place, situation, or level where someone feels confident and comfortable” (Britannica, 2025). In the context of performance, it is defined as behavioural state of the people, in which they work easily without perceiving it as a risk and anxiety to show a constant performance (White, 2009). Though, while discussing the term comfort zone in the context of behaviour, rather than explaining it as actions individuals can carry out with minimal or no anxiety or avoidance, it can be explained as a psychological mechanism behind the decisions of people about whether the anxiety-provoking behaviors are beneficial or not (Kiknadze, 2018; Kiknadze & Leary, 2021).

The concept of the comfort zone, as it relates to performance, was a subject of study by psychologists Robert M. Yerkes and John D. Dodson in 1908. They discovered that a state of considerable comfort resulted in a steady degree of performing a task or function. However, they did identify that in order to boost our process of action or any function, we must be anxious to begin with. **The Yerkes-Dodson Law** was developed based on their findings. They proposed that to enhance performance, an individual must first encounter some anxiety and then venture into a setting where stress levels are marginally elevated. They dubbed that area “optimal anxiety”, and stated that this area was just outside the confines of one’s routine compass or comfort zone (Yerkes & Dodson, 1908).

Another eminent psychologist, Andy Ryan and Dawn Markova (2006) came up with a theory on how people learn. They explained three zones within learning processes: the comfort zone, the stretch zone and the panic (or stress) zone in their comfort-stretch-panic model. According to them, a person’s comfort zone is the place where they feel most at ease. There are no fears or apprehensions. The individual is in a safe and secure environment. Everything is as it should be. In this zone, obstacles will not be present; thus, one can learn easily. But there will be no challenges for people, hence there is little or no reflection or learning. The majority of the time, things are left alone. In the panic zone, a task is so far apart from our comfortable zone that it becomes overpowering. Stress, fear, and challenge overwhelm us, preventing us from learning (for example fight or flight response). Our whole focus is on coping and regulating anxiety that we face. If an individual spends too much time in this zone, he/she may lose interest in pushing his boundaries and prefer to remain in familiar surroundings. The stretch zone sits in the middle of the previous zones. Things (actions, events, etc.) feel weird and foreign in this zone. This zone is conducive to

learning. It's a place where we can broaden our horizons, focus on our personal development, and test our limits. The approach-avoidance theory clearly explains how individuals regulate their behaviors based on perceived rewards and threats (Elliot, 2006). According to this theory, individuals experience a constant psychological conflict between approaching desirable experiences and avoiding potential risks (Lewin, 1935). This dual-process framework aligns with the Comfort Zone Orientation (CZO) model, where individuals vary in their tendencies to seek novel experiences (approach motivation) or retreat due to anxiety and perceived threats (avoidance motivation) (Kiknadze & Leary, 2021). For instance, individuals high in sensation-seeking and extraversion are more likely to approach new challenges, while those with high trait anxiety and behavioral inhibition are prone to staying within familiar and predictable situations (Gray & McNaughton, 2003). Moreover, self-efficacy has a crucial role in moderating this balance, as individuals those who have higher confidence in managing challenges are more likely to expand their comfort zones (Bandura, 1997). Therefore, comfort zone dynamics can be understood as a manifestation of approach-avoidance processes, where the motivation to go out of one's familiar boundaries is influenced by both internal personality traits and external situational factors. Hence, there are many theories explaining the concept of comfort zone, the most comprehensive and empirical research on the concept of Comfort zone orientation was done by Kiknadze & Leary in 2021. They defined the term 'Comfort Zone Orientation (CZO)' as people's attitude toward their comfort zone. It explains how much a person values and tries to expand their comfort zone. It is influenced by three broad psychological factors that determine a person's attitude or tendency to go out of their comfort zone. The first factor is the desire for novel and stimulating experiences, which is associated with sensation-seeking, behavioral approach system (BAS), extraversion, and openness to experience. Individuals high in these traits often find excitement and pleasure in new challenges and may actively seek situations that others perceive as risky (Kiknadze & Leary, 2021). The second factor involves negative affect, anxiety, and avoidance tendencies, particularly emotional stability (neuroticism), behavioral inhibition system (BIS), and trait anxiety. People are more likely to engage in novel and potentially intimidating experiences, if they have lower anxiety and threat sensitivity (Gray & McNaughton, 2003). Finally, self-efficacy and extraversion have an important role in expanding one's comfort zone. Suppose, an individual believes in their capability to handle challenges and solve problems, there is a high chance to be engaged with unfamiliar and novel situations (Rottinghaus, Lindley, Green, & Borgen, 2002). While comfort zone is often viewed as a simple fear-based construct, evidence suggests that approach-avoidance judgments defining one's comfort zone are dynamic and shaped by multiple psychological processes (Kiknadze & Leary, 2021). Kiknadze and Leary constructed a scale based on empirical research and a rigorous validation process to measure an individual's comfort zone orientation. It is a single- factor scale consisting of 10 items. It provides a structured framework for assessing individual tendencies to remain within or step beyond their comfort zones. Comfort zone orientation reflects the extent to which individuals seek familiarity and security versus novelty and challenge. The results of the validation studies suggested that there are various variables predicting individual's comfort zone orientation such as self-efficacy, personality traits, negative emotionality, sensation seeking, trait anxiety, and

behavioral activation and inhibition (Kiknadze and Leary, 2021). They suggested that this scale has a significant role in explaining the association between peoples' comfort zone orientations and personal factors. Moreover, they recommended the impact of cultural differences on the perception of individual's comfort zone orientation should be studied in future. Since the scale is comparatively new, there is a scarcity of research that shows validation of this scale in different cultures and in regional languages. However, Köse, A., & Uzun, M. (2024) validated this scale in Turkish. They assessed the psychometric properties of the scale by using both EFA and CFA. The result suggested that the scale has two factors instead of a single factor as in the original scale. And the Cronbach alpha was desirable. This result reveals the importance of validating the scale in different cultures and languages.

Objectives of the Study

1. To assess the reliability of the Comfort Zone Orientation Scale in student population.
2. To conduct a Confirmatory Factor Analysis (CFA) to validate the obtained factor structure.

Rationale of the Study

Validating psychological instruments is important to ensure that these instruments are valid, reliable & usable in different populations without losing accuracy (DeVellis, 2017). The Comfort Zone Orientation Scale (CZOS), developed by Kiknadze and Leary (2021), is a relatively new instrument designed to measure individual differences in comfort zone behaviors, including tendencies toward sensation-seeking, avoiding stress, and taking challenges. Thought the scale has strong theoretical base, its psychometric properties have not been explored much more, especially in non-western context. So, it is important to assess its psychometric properties like reliability and validity in Asian context. By doing this psychometric validation and filling this research gap, the findings will contribute to various fields such as psychometrics, personality psychology, and well-being research. Above all, the study's findings could inform educators, counselors, and policymakers about the role of comfort zone behaviors in students' personal and professional development. Thus, this study seeks to establish the CZO scale as a robust measure of comfort zone orientation in an Asian context, and expanding its applicability and utility in cross-cultural psychological assessments.

Method

Participants

The data was collected from students from the University of Kashmir, Srinagar, J&K, India through a convenient sampling method. The total sample included 130, consisting of 79 females and 51 males. The age of the participants ranged from 20 to 30. Participants represented diverse academic disciplines, including the humanities, social sciences, and natural sciences.

Procedure

The data was collected through both offline and online modes. A brief introduction was given to each participant, then asked to provide informed consent. The researcher gave assurance of their anonymity and voluntary participation. A hard copy of the questionnaire was provided to the participants who participated in offline mode, while those approached online were mailed the google form of the questionnaire in order to collect their responses.

Measures

To measure participant's comfort zone orientation, the Comfort Zone Orientation Scale (Kiknadze & Leary, 2021) was used. The scale consists of 10 items assessing the individual's tendency to engage in activities that push them beyond their comfort zone. The items were evaluated using a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree." Prior to analysis, all reverse-scored items were re-coded. After summing up the responses, the higher scores indicate greater orientation towards stepping out of one's comfort zone and vice versa. Examples of items include "Purposefully pushing myself beyond my comfort zone helps me grow as a person" and "I have no desire to do things that take me out of my comfort zone" (reverse scored). The scale has demonstrated good internal consistency and construct validity in previous Western studies.

Data Analysis

The psychometric properties of the scale were assessed using confirmatory factor analyses & reliability has been assessed by Cronbach alpha and item-total correlation.

Results & Discussion

To understand the overall distribution of comfort zone orientation scores, descriptive statistics were calculated. From table 1, the mean score of 3.21 indicates a moderate tendency towards comfort zone orientation. The skewness value of -0.18 suggests a slight leftward skew, indicating that most students scored just above the mean. The kurtosis value of 0.31 indicates that the distribution is relatively flat and there are no extreme scores. These findings provide basic information regarding capacity of the scale to capture comfort zone orientation consistently.

Table 1. Descriptives

Comfort zone	Value
Mean	3.21
Standard Deviation	0.55
Skewness	-0.18
Kurtosis	0.31
Trimmed Mean (10%)	3.22

Confirmatory Factor Analysis (CFA)

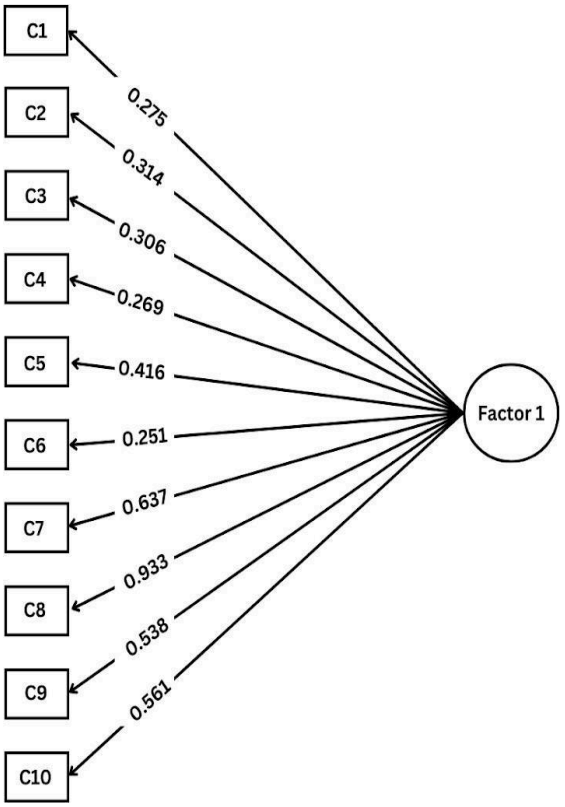
To validate the factor, structure a CFA was performed. According to Table 2 and figure 1, Factor loadings in the CFA model ranged from 0.251 (C6) to 0.933 (C8), with most items loading significantly on the single latent factor. The significance of standardized factor loadings ($p < .05$) supports the presence of a strong latent construct. But, some items like C1 (0.275) and C6 (0.251), had lower loadings. Model fit indices revealed mixed results. The chi-square test for model fit was significant ($x^2 = 80.1$, $df = 35$, $p < .001$), which is expected in large samples. The comparative fit index (CFI = 0.723) and Tucker-Lewis index (TLI = 0.644) were below the recommended threshold of 0.90 (Hu & Bentler, 1999). It indicates a suboptimal model fit. The root mean square error of approximation (RMSEA = 0.0995, 90% CI [0.0708, 0.128]) was above the acceptable limit of 0.08, indicating potential misfit in the model. These findings highlight the need for further refinement of the scale to improve

its construct validity and overall model fit in Asian context

Table 2. CFA Factor Loadings

Factor	Indicator	Estimate	SE	P
Factor 1	C1	0.275	0.1187	0.021
	C2	0.314	0.1180	0.008
	C3	0.306	0.1099	0.005
	C4	0.269	0.0949	0.005
	C5	0.416	0.1069	< .001
	C6	0.251	0.1042	0.016
	C7	0.637	0.1030	< .001
	C8	0.933	0.1141	< .001
	C9	0.538	0.1010	< .001
	C10	0.561	0.1107	< .001

Figure 1 : *CFA Diagram*



Reliability Analysis of the CZO

The reliability analysis of the Comfort Zone Orientation Scale (CZOS) revealed a Cronbach's alpha of 0.67. The Cronbach's alpha of 0.67 indicates moderate internal consistency for the scale. While a value of 0.70 or higher is generally accepted for psychological scales (Nunnally & Bernstein, 1994), this result suggests that the scale's reliability could be improved. This moderate level of internal consistency implies that the items measure a related construct but may contain some degree of measurement error or heterogeneity in item content. So, it is better to refine some items to improve the reliability.

Table 3. Reliability Analysis

Item	Mean	Variance	Item-Total Correlation
C1	3.215	1.287	0.474
C2	3.315	1.334	0.493
C3	2.715	1.182	0.405
C4	3.815	0.911	0.385
C5	2.838	1.206	0.452
C6	3.323	1.089	0.362
C7	2.762	1.160	0.655
C8	3.115	1.498	0.707
C9	3.754	1.117	0.571
C10	3.262	1.342	0.479

Table 3. shows that the item-total correlations ranged from 0.362 to 0.707. Items C7 (0.655) and C8 (0.707) demonstrated the highest correlations with the total scale, suggesting that these items are strongly contributing to the construct being measured. In contrast, C4 (0.385) and C6 (0.362) are weakly correlated with total score. This indicates that these items may not align to the construct being measured. This may suggest some conceptual divergence or wording issues that could benefit from revision in future scale adaptations.

Overall, the results indicate that the Comfort Zone Orientation Scale has some degree of reliability and construct validity, but, there is a need of revising or eliminating some items to improve reliability and validity of the scale in diverse contexts. Future research should consider modifying or removing items with low factor loadings and re-evaluating psychometric properties of the scale in

different cultural and demographic groups. This process is very important for developing a valid and reliable assessment tool that accurately captures the comfort zone orientation construct in diverse populations.

Implications and Recommendations

The findings suggest that while the Comfort Zone Orientation Scale demonstrates some structural validity, certain items may need to be revised or removed to increase model fit. Items with low factor loadings and high uniqueness values like C6 and C1 may not effectively represent the underlying construct and these should be re-evaluated.

The lower fit indices in CFA is an indication that such items should be refined by changing words or structure or should revise the theoretical construct being measured. Future research should explore alternative factor structures, like introducing a two-factor or multi-factor model to better capture the construct being measured clearly. Additionally, assessing the reliability and validity of the scale across diverse populations will enhance its generalizability and applicability.

The differences in factor loadings and model fit between the Asian and Western contexts may be attributed to cultural variations in attitudes toward risk-taking, discomfort tolerance, and personal growth. In individualistic cultures like the U.S., pushing oneself beyond one's comfort zone is often seen as a personal achievement and an essential trait for success (Hofstede, 2001). In contrast, in collectivistic cultures like India, decisions to step out of one's comfort zone may be more influenced by social and familial expectations rather than personal motivation (Markus & Kitayama, 1991). This may explain why items emphasizing self-driven discomfort tolerance (e.g., "I make myself do things that make me nervous") showed weaker loadings.

Limitations

Small sample size is a primary limitation of this study. This may limit the generalizability of the findings. The reliance on non-probability sampling, specifically convenience sampling, also compromises the generalizability of the findings to the broader population.

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