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RESEARCH ARTICLE

A PRELIMINARY VALIDATION OF THE ROLE PIC (O) INSTRUMENT FOR ASSESSING COPING STYLES AMONG MANAGERS IN INDIAN CONTEXT 2020

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Abstract

Role PICS (Projective Instrument for Measuring Coping Styles, Pareek, 1983) is a semi projective instrument for assessment of styles or strategies used by the respondents to cope with role stress. It consisted of 24 situations represented by pictures. In this self administered scale, the subjects were asked to write a response which comes first to their mind after reading the comment made by another person in the stimulus situations. Some problem is raised in a particular situation and the respondent is required to give a response as to how the persons to whom a statement has been made would respond. The responses are scored on the following eight dimensions: Impulsive, Intrapulsive, Extrapulsive, Defensive, Impulsive, Impulsive, Intrapulsive, Extrapulsive, Interpersonal. Out of these eight dimensions first four dimensions show avoidant oriented behaviour, and they are considered as dysfunctional styles of coping with stress situations in Indian context. The main objective of the present study was to determine the psychometric properties of Role PICS. The statistical analysis of content through internal consistency of alpha (α) and construct validity as well as exploratory factor analysis, reliability provided evidence of significance of the scale.

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Introduction:-

While much is known about the kind of stresses people experience in day-to-day life, less systematic attention has been paid to study the stresses in working situations and the ways in which people respond to these stresses. Recently there has been an increased concern among researchers about coping and adaptation in relation to stressful situations, and how stress is managed (Coelho, Hamburg, & Adams, 1974, Moos 1986, Pareek 1977).

Increasingly, more attention is being given to the ways of coping with stress. Perhaps because of its common lay usage, the term "coping" has acquired a variety of meanings. Nevertheless, it looks like there is increasing consensus between the professionals (Lazarus, Averill and Opton 1974 and White 1974) that coping is nothing but try to get mastery for conditions like harm, threat, or challenge whenever there is non-availability of any usual or automatic response.

When individuals and organizations experience role stress, they adopt ways of dealing with it. Neither an individual nor an organization can remain in a continual state of tension, so even if a deliberate and conscious strategy is not utilized to deal with the stress, some strategy is adopted. For example, the strategy may be to leave the conflicts and stress to take care of themselves. This is a strategy, although the individual or the organization may not be aware of it. We call such strategies "coping styles."

The word "coping" has been used in several ways; two meanings predominate in the literature. The term has been used to denote general ways of dealing with stress and has been defined as the effort to "master" conditions of harm, threat, or challenge when a routine or automatic response is not readily available (Lazarus, 1974). Hall (1972) has reported that the act of coping itself, as opposed to noncoping, is related to satisfaction and is more important than any coping strategy.

Role stress coping strategies are referred to the approaches which an individual takes while dealing with stress and remain in a stress-free situation (LeRouge, Cynthia, Nelson, Anthony, Blanton & Ellis, 2006). Organizations, as well as individuals, tend to use various strategies on a personal as well as collectively while coping with role stress at working place.

Lazarus (1974) laid emphasis on the vital role of cognitive process during activity of coping and significance of coping to determine the quality and strength of emotional reactions. Monat and Lazarus (1977) pointed out a magnificent anecdotal and research proof which says that we constantly "self-regulate" our emotional reactions, say for example to escape, or postpone unpleasant circumstances, actively try to change a threatening situation, mislead our own self-regarding implications about certain facts, or simply learn to isolate and detach ourselves from annoying situations. Lazarus emphasized that an individual (i.e., the self) needs to actively assess and judge the situation and see what can be done instead of environmental contingencies, which probably manipulate its behavior. (Skinner, 1953).

Kirkcaldy and Furnham (1999) found that differences in the level of management and education status, influenced the coping style preferences. Maximally fruitful forms of stress coping were progressing to a more senior post in management, delegation and maintenance of relationships having stability. A manager who is very much trained on an academical level with having a postgraduate degree, will most likely be using effective time-management and planning as ways to cope stress.

Different approaches to the study of coping are used by different researchers. Some researchers emphasise on general coping traits, styles, or dispositions, whereas remaining preferred to study active, on-going strategies for coping stress during specific stress causing situations.

Pareek (1976) proposed two types of coping strategies that people generally use to deal with stress. One is that the person may decide to suffer from, accept, or deny the experienced stress or to blame somebody (self or other) or something for the stressful situation or the individual's being in it. These are passive or avoidance strategies and are referred to as "dysfunctional" ways of coping with stressful situations. A second type of strategy is the decision to face the realities of the situation and to take some form of action to solve the problems, either individually or with the help of others. The active, approach style is regarded by social scientists as a "functional" way of dealing with stress.

Individuals do not restrict themselves to using one type of coping strategy exclusively, and different individuals employ complex and varied combinations of strategies to deal with the same kinds of stress. As against this, those concentrating on active coping strategies give preference to observing a person's behavior as it is occurring during a stress causing condition, and subsequently conclude regarding the coping process signalled out by that behavior. However, this approach on a large scale has got neglected during coping studies. Close to this approach is Pareek's (1980) PICS which stands for Projective Instrument for Measuring Coping Styles. This is a semi-projective technique, which gives us the coping style profiles that any person adopts, when they deal with role stress situations. This instrument portrays 24 situations consisting of 3 each for 8 types of role stress (Pareek, 1980). In this one person narrates to other person the role stress experienced by him or her a situation, and the latter must give response to the former's problem. Subsequently different responses received on this instrument are given scores using a system of categorizing the responses on the following 8 dimensions, briefly characterized by the type of statements made by the respondents.

Objective of the Study:

Standardize Pareek 1980 Role PICS (O) Coping Scale in 2020, after 40 years of Scale development.

Method and Material:-**Instrument and Sample:**

Role PICS (Projective Instrument for Measuring Coping Styles, Pareek, 1983) was used for data collection. This is a semi-projective instrument for assessment of styles or strategies used by the respondents to cope with role stress. It consisted of 24 situations represented by pictures. In this self-administered scale, the subjects were asked to write a response which comes first to their mind after reading the comment made by another person in the stimulus situations. Some problem is raised in a particular situation and the respondent is required to give a response as to how the persons to whom a statement has been made would respond. The responses are scored on the following eight dimensions', Impunitive, Intrapunitive, Extrapunitive, Defensiveness, Impersistive, Impersistive, Intrapersistive, Extrapersistive, Interpersistive. Out of these eight dimensions first four dimensions show avoidance-oriented behaviour, and they are considered as dysfunctional styles of coping with stress situations. Last four dimensions are approach oriented and are regarded as functional. It was administered on 150 managers. 50 managers each from Private, Government & Educational sector. Significant differences were found between the Private, Government & Educational sector groups.

The instrument depicts eight role stresses: role overload, role ambiguity, role stagnation, role isolation, self-role distance, inter-role conflict, role inadequacy, and role erosion (for definitions of these, see Pareek, 1982). Table 1 provides an analysis of the statements presented in the Role PICS instrument (indicated by numerals from 1 to 24) in relation to the various role stresses that they indicate and whether the statement is made by the role occupant or to the role occupant.

Table 1. Analysis of Role PICS Statements

Sr. No	Type of Role stress	Role occupant to		Role occupant from		
		Colleague	Supervisor	Colleague	Supervisor	Spouse
1	Role Overload		9	1	17	
2	Role Ambiguity		10	2, 18		
3	Role Stagnation	11		3	19	
4	Role Isolation	12			20	4
5	Self-Role Distance		5	13	21	
6	Inter-role Conflict	6		14		22
7	Role Inadequacy	23	15	7		
8	Role Erosion		16	8	24	
	Total	4	5	8	5	2

B) Role PICS Categories

The scoring of responses utilizes a system of categorization that employs a two-by-two cube; that is, the scoring system has three dimensions, and each dimension has two aspects. The three dimensions are as follows:

1. Externality. This dimension measures the degree to which the person places the responsibility for the role stress on external factors, resulting in aggression toward and blame placed on such external factors. This may include the tendency to expect the solution to the stress to come from external sources. Externality is measured as high or low.

2. Internality. This is the opposite of externality. One may perceive oneself as responsible for the stress and may therefore express aggression toward or blame oneself. Similarly, one may expect that the solution to the stress should come from oneself. Internality is measured as high or low.

3. Mode of Coping. There are two modes: avoiding the situation (a reactive strategy) or confronting and approaching the problem (a proactive strategy). McKinney (1980) has proposed the concept of engagement style, differentiating the perception that one has of oneself as "doing" (agent) or "being done to" (patient).

Combining the two aspects of each of the three dimensions results in eight possible strategies to cope with stress. Concepts have been borrowed from Rosenzweig (1978) to name the various strategies. The avoidance mode is

characterized by (a) aggression and blame, (b) helplessness and resignation, (c) minimizing of the significance of the stressful situation by accepting it with a sense of resignation, or (d) denying the presence of stress or finding an explanation for it. All these behaviors “help” the individual to not do anything in relation to the stress.

The categorization scheme uses Rosenzweig’s term “punitive” (e.g., impunitive) to denote three of the strategies in the avoidance mode. “Defensive” is used to denote the fourth strategy. These strategies are abbreviated with capital letters (M, I, E, and D). The approach mode is characterized by (a) hope that things will improve, (b) effort by the individual to solve the problem, (c) the expectation that others will help or asking for help, and (d) doing something about the problem jointly with others. Rosenzweig’s term “persistive” is used to denote the four strategies in this mode. These strategies are abbreviated with lowercase letters (m, i, e, and n). These eight strategies (M, I, E, D, m, i, e, and n) are further explained in the section on scoring the instrument

Table 2 : Categories of Coping Styles

Mode	Internality	Externality	Coping style
Avoidance	Low	Low	Impunitive (M)
Avoidance	High	Low	Intropunitive (I)
Avoidance	Low	High	Extrapunitive (E)
Avoidance	High	High	Defensive (D)
Avoidance	Low	Low	Impersistive (m)
Approach	High	Low	Intropersistive (i)
Approach	Low	High	Extrapersistive (e)
Approach	High	High	Interpersistive (n)

C) Scoring:

As Role PICS is a semi-projective technique, response can be scored by using a system of categorization. including the eight styles to be scored for each situation. In addition, Group conformity Rating (GCR) is also to be scored. Sometimes, statements can be scored under two or three categories. In such cases, a statement is scored under 2 categories and each category is given a half (0.50 score). The concept of GCR has been borrowed from Rosenzweig. GCR measures the conformity of an individual score to the modal response of the group. The modal response is the “most frequently given response style” to a situation by a group. For a category to qualify as modal, it must have a minimum of a third of all responses (33.3 per cent). Rosenzweig suggested a forty percent criterion. It should be separated from “the next most frequent style” category by a statistically significant difference with a critical ratio of at least 3.0 (The standard error of the difference between percentages is used in this discrimination). Details for developing GCR criteria have been reported in study of Singhvi and Pareek, 1982.

Statistical analysis And Results:

Aim of the current study evolution of the psychometric properties of Role PICS scale after 40 years of its development, in year 2020, on Managers of age group between 25yrs – 50 years, for this purpose various statistical analysis done viz. exploratory factoranalysis (EFA), construct validity), Discriminant validity and Concurrent validity, Cronbach’s Alpha for content validity and reliability of the Role PICS scale.

Reliability:

Several methods exist for estimating the reliability including test-retest, equivalent forms, split half, and coefficient of alpha. Chose to examine reliability through split-half, using Cronbach’s alpha as a measure of reliability. Coefficient alpha is “the expected correlation of one test with another test of some length then the two-test purport to measure the something (Nunnally, 1978). The reliability of Role PICS Scale Cronbach’s Alpha is 0.74. The reliability of Role PICS Scale sub-scales internal consistency of Cronbach’s Alpha coefficient is 0.72 in Approach Coping and 0.71 in Avoidance Coping. The Guttman’s split half coefficient is 0.71, Odd-Even Reliability was .91, All the coefficients are significant at .001 level. For a semi projective instrument like this, odd even reliability coefficient is more relevant, as the change in the pattern of response was found to be a significant factor. “It is possible for the subject to change with recognizable consistency in the course of the test from any type or direction

of response to any other mode. Any such sequence I obviously important for an understanding of reactions to frustration since such depends in such behavior upon the individual's reaction to his own reaction. (Pareek, Devi and Rosenzweig, 1968). The reliability of scale is provided evidenced that the Role Stress Coping Style Scale (Role PICS) is reliable.

Structure of Scale- Exploratory Factor Analysis

To conduct the exploratory stage of factor analysis, extraction methods in Principal Analysis Factoring technique (PAF) was used. The method was chosen from the available methods because it is good method for assessing the underlying dimension of a scale. Varimax rotation was used for factoring methods (Kim, 1975). Eight factors were identified from the initial factor run that exhibited eigenvalues greater than one. Because eight factors were not consistent with the purpose and theory, forced on additional run to two factor loadings are interpreted. Varimax rotation was done to clarify the loading on these factors. There were 24 items which had significant loadings on any of the two factors. Obtained loading of items on the two factors are presented in the table.

Table 3: Role Pic (Coping) - KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.655
Bartlett's Test of Sphericity	Approx. Chi-Square	3755.70
	df	28
	Sig.	.000

Table 4: Role Pic (Coping) - Goodness-of-fit Test

Goodness-of-fit Test		
Chi-Square	df	Sig.
2711.41	13	.000

Table 5 Factor Loading of Role Pic (O) Coping Items

Factor Variables	RPAvoid 1	RPAApp 2
M	-0.828	
I	-0.717	
E	-0.276	
D	0.828	
Imper		0.785
Intro		0.657
Extra		0.556
Inter		0.652
Initial Eigenvalues	6.02	1.98
% of Variance	75.29	24.71
Cumulative %	59.39	100.00

Table 3 where the Kaiser-Meyer-Olkin measure of sampling adequacy was .66, above the commonly recommended value of .6, and Bartlett's test of sphericity was significant (χ^2 (df 28) = 3755.70, $p < .000$). further confirming that each item shared some common variance with other items. Given these overall indicators, factor analysis was deemed to be suitable with all 24 items.

Table 4: A goodness-of-fit index. Because a small violation of the model often can lead to a significant violation of the model if the sample is large (Tucker & Lewis, 1973; Hu, Bentler & Kano, 1992), it is recommended to use goodness-of-fit index which reflect the size of the violation (like Cohen's d in a t-test). The Chi Square value 2711.41, at df of 13, found to be significant at $p < .000$ level. Fourthly

Table 5: Reports the factor loading of all the items in organizational role efficacy scale. As can be seen in the table, all items had higher factor loading and were retained for future quantitative analysis.

Factor 1 explains 75.29% variance. It is a common factor and can be termed Avoidance Style. It has very high loadings on Impunitive, Intropunitive and defensive styles. This factor is characterized by blame and aggression towards external people and organizations, and a high tendency to find excuses for frustration and denial of frustration. The factor has a very high negative loading on Intrapersistive style. In other words, this factor is the opposite of action by the person himself, whereas there is blaming and excuses. These are the characteristics of cynicism, i.e., blaming others and findings excuses for the problems, without taking any action for their solutions.

Factor 2 can be called Approach Style. It has a very high loading on impressive style and an equally high loading on intropunitive style. The factor has elements of both blaming oneself for problems as well as finding a joint solution of them. It also has high loading on interpersistive style, indicating the share of finding the solution by one's own efforts. The factor has a very high negative loading on defensive styles. In other words, there is a no place for denial of stress or giving excuses for problems. It is indicative of personal responsibility for the problems and joint search of a solution. It explains about 24.71% variance

Validity of the Scale:

Specially addressed construct validity, discriminant validity and concurrent validity. Construct validity concerns a hypothesized relationship between measure of a construct and a particular observable variable (Nunnally, 1978). Peter (1981) stated that "if a construct were hypothesized to have two dimensions a factor analysis a purported measure of the construct which produces two meaningful factors could be interpreted as supportive evidence of construct validity." Our factor results support the conceptualization of Role PICS Scale as a two-dimension construct.

Construct validity:

concerns a hypothesized relationship between measure of a construct and a particular observable variable (Nunnally 1978). Peter (1981) further states that "if a construct were hypothesized have two dimensions a factor analysis a purported measure of the construct which produces two meaningful factors could be interpreted as supportive evidence of construct validity." Our factor results support the conceptualization of Role PICS as a two-dimension construct. Construct validity is established for this conceptualization (Webster, 1975; Kinner, et al, 1974) of the latent variables. Factor analysis is determining in the construct validity of the scale (Sing, 1992).

Discriminant validity:

reflects the extent to which the measure is unique and not a reflection of other variables and is determined by low correlation between the measure of interest and other measure that are not measuring the same variables or concept (Campbell & Fiske, 1959). Discriminant validity was assessed through t-ratio, the subject was classified two groups based on their response on total items on the scale. For obtaining the discrimination power, the difference between each group on every item of the scale was analyzed. The t-ratio was calculated between two groups lower extreme and upper extreme group for each item on the scale. The result indicates that all obtained t-ratio were highly significant, which significant that all items of the scale have high discrimination power. As is evidence support for the discriminant validity.

Concurrent validity:

Inter-correlation is identified in the concurrent validity of the scale (Sing, 1992).

Table 2:Shows correlation in Role PICS Dimension Approach and Avoidance coping style

Correlation	Avoidance coping style	Approach coping style
Avoidance coping style	1.00	-.99
Approach coping style		1.00

The role stress coping style constructs namely Approach and Avoidance coping style were computed in correlation with the Pearson correlation coefficient method, the correlation between the Approach and Avoidance coping style, the sub-scale is negatively correlated, and correlation is significant ($r = -0.99$, $p < .001$). It means that the sub scales of the role stress coping style scale version, Approach and Avoidance coping style are negatively significant dimensions of the scale.

Discussion:-

The result of factor analysis supported our attempt to adapt scale that would assess relatively distinct and clearly focused aspects of coping, there were two factors identified as subscales (Approach and Avoidance coping style) with high factor loading (Avoidance coping style Eigenvalue 75.29 and Approach coping style Eigenvalue 24.71). The reliability index of the overall scale and sub-scale also has very good internal consistencies. In using Role PICS as a feedback instrument, the facilitator can report to everyone on his or her scores for the various coping styles and can also present information about the relationship between coping styles and personality and role dimensions.

The feedback itself may help the respondents to examine the implications of their behavior and to make some plans for change. Individuals and groups can also develop strategies for moving from one coping style to another. A highly significant positive relationship has been reported between approach styles and internality and between avoidance styles and externality (Sen, 1982; Surti, 1983). Approach styles have a high correlation with optimism and a negative correlation with alienation. In findings with relation to organizational roles indicate that approach styles have a significant positive relationship with role efficacy and effective role behavior involving needs such as achievement, power, extension, control, and dependency. There also is a significant positive correlation between approach styles and job satisfaction (Sen, 1982).

Conclusion:-

The psychometric properties of the scale confirms that the Role PICS (Projective Instrument for Measuring Coping Styles, Pareek, 1983 version is reliable and valid instrument in year 2020 which could be used for the Indian adult population for the age group of 25-50 years.

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