



TRANSLATION AND ADAPTATION OF ORGANIZATIONAL ROLE STRESS SCALE, JOB SATISFACTION SCALE MASLACH BURNOUT INVENTORY AND SOCIAL SUPPORT SCALE AMONG PUBLIC SECTOR PARAMEDICS OF KHYBER PAKHTUNKHWA

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Abstract

The major objective of the current study was to establish the psychometric properties, i-e, to translate, validate, and determine validity of the Organizational Role Stress Scale (Pareek, 1983), the Job Satisfaction Scale (Hackman & Oldham, 1975) the Maslach Burnout Inventory (Maslach & Jackson, 1986) and the Social Support Scale (Caplan, Cobb, French, & Harrison, 1975) in Urdu. The process of scales translation was carried out by following the translation and adaptation guidelines given by Brislin (1980). The items were translated in accordance with the local values. Initially the reliability of the translated instruments was tested on a sample of (N = 120) married couples (male n = 58 & female n = 62). The translated version showed high reliability of $\alpha = .90$ which indicates that it is an adequate scale to be used with Pakistani married people. In order to validate its factor structure the Confirmatory Factor Analysis was performed on a sample of (N = 400) people (husbands n = 200 & wives n = 200). The result showed that the translated scale is a valid measure to be used in Pakistani population in research and clinical setting.

Keywords: Translation, Adaptation, Validity, Reliability

Introduction

Stress when faced with a threat, whether to physical safety or emotional equilibrium, the body's defenses kick into high gear in a rapid, automatic process known as the "fight-or-flight" response. The events that provoke stress are called stressors which cover a whole range of situations. Work stress has been with us since long time but now-a-days its intensity has increased because job responsibilities on the part of employee have been multiplied. Burnout is the result of uncontrolled work stress (Altun, 2002). Stress is the state manifested by a specific syndrome which consists of all the non specifically induced changes within a biologic system (Selye, 1956). As a specific syndrome of biological events stress can be both pleasant and unpleasant. As during stress the body's defenses are mobilized, human being thus, develop adaptation to hostile or threatening events. If imposed on a single body organ stress become dangerous. Selye (1974) on the basis of his research concluded that stress is neither merely nervous tension nor it is always the nonspecific result of damage. Neither it

can always be avoided nor freedom from it is possible. Hence he redefined stress as the non specific response of the body to any demand made upon it (Selye ,1974). According to Wool Folk and Richardson (1978)” stress is linked to some act of understanding resulting from interaction between the environment and the organism.

According to Palmer, Homes and Clarke (2003) work place stress refers to adverse reaction people experience due to excessive pressures or other types of demands which might have been placed on them. In the context of considering work related stress, it is essential to make distinction between stressors and strain. Stressors are those environmental factors that may be sources of stress while strain is an individual’s response to these stressors (Cooper, Dewe & Driscoll, 2001).

In Pakistan NWFP is the third most populous province. For a total area of 74,521 square kilometers, there are 667 union councils, with total 1599 Health Outlets / facility centers. If we take into account the ratio of population versus doctor it indicates a very gruesome spectacle. For a population of 1600 person, only a single doctor and for a single doctor only three nurses are available while population/outlet is 6500. There are only 30 health intuitions in the province which intake only 2840 students per year, among which only nine institutions with capacity of 1390 students/years are available for paramedics. So one can easily gauge the stupendous congestion in hospitals, and concomitant stress for the paramedics, (<http://nwfp.gov.pk>, 2009). No specific tasks are assigned for a nurse or paramedic at the time of appointment and because of low standard of training and curriculum they are unable to fix themselves in a particular pattern. In this background paramedical practitioners are just like the snowball tossed from one ward and unit to another and that is why they can not perform their duty in a relax environment which ultimately develops stress in them and burnout syndrome is its natural outcome. Sometimes paramedical practitioners, nurses or LHV are obliged to provide services beyond the confines of a hospital, where they may not be safe (Health Department 1993). Under advantage is taken from their medical skills, and they are called to routine and humdrum tasks. Due to these hurdles paramedics frequently face they can not equip themselves with latest skills and experimenting in their field. In these kind of situations most of the nurses and paramedics are not clear about their work objectives, expectations of co-workers, scope of responsibilities, and standard of their performance which often develops role ambiguity in them and it is this role ambiguity which acts as stressors for them (Beehr & Bhagat, 1985). Frequent absenteeism of the paramedics and nurses, is another serious issues of health care which greatly undermined service. The engagement of paramedics in different locations to get maximum gain is another cause of their burden and workload pressure. These stressors when become severe crush specifically the female paramedics who find it difficult to cope with them adequately (Pakistan’s Health Sector, Dose Corruption Lurk 2007).

The aim of current study was to translate and validate the five scales, namely the Organizational Role Stress Scale (Pareek,1983), the Job Satisfaction Scale (Hackman & Oldham ,1975) the Maslach Burnout Inventory (Maslach & Jackson, 1986) and the Social Support Scale (Caplan, Cobb, French, & Harrision,1975). As there is no existing scales in Pakistan particularly in KP which measured these variables, the focus of the current study was to make translation and adaptation of these scales in Urdu language incorporating the indigenous cultural perspective to use it specifically with public sector paramedics of KP. The use of these scales in Urdu would make it possible to explore the level and causes of stress among paramedics of KP. Research on public sector paramedics of KP highlighted different role stressors such as role ambiguity, role overload and their impact on the personal and organizational outcomes, but the moderating role of social support have not been focused upon. One of the reasons for this is lack of a valid instrument in the Urdu language. Therefore, this study also aimed to translate and validate the Social Support Scale for use on a Pakistani sample. Following this background the current research had two major objectives.

1. Translation of the Scales in Urdu
2. Establishing the psychometric properties i-e, validity and reliability of the translated scale

Method

The study was carried out in three phases. In first phase all the scales were translated in Urdu, except the Organizational Commitment Scale. For this purpose English version of the scale was given to four experts, out of which two were PhD students who were bilingual and had experience in translation and two were faculty members. They were instructed to translate all items in Urdu without distorting the basic theme these statements convey in English.

In phase two the translated items were carefully examined and scrutinized by a senior faculty member who had expertise in psycho-metrics specifically in test development and construction in order to select only one Urdu translation for each statement. For clarity of the content and functional equivalence, statements were rechecked by the same faculty member who was also co-supervisor of this study. Some of the statements were modified in the light of her suggestions.

During phase three proof reading was done and final version of these scales were obtained. An initial questionnaire consisting of 108 items was designed which included all the scales with reference to their specific measures. These items were written in 5-point Likert type scale with following anchors: Never (1) Rarely (2) Sometime (3) Often (4) and Always (5).

The second phase was conducted to empirically address the psychometric properties of the translated versions.

Sample

Sample of this phase comprised of (N=120) paramedical staff (female n=58 & male=42) with different position i.e., nurses, technicians, lady health workers (LHWs), dispensers, and vaccinators. The sample was chosen from the primary, secondary and tertiary health care providers in the public sector of NWFP.

Instruments

Organizational Role Stress Scale (ORS)

The Organizational Role Stress Scale (ORS) was developed by Pareek (1983). The scale consists of 50 items, five items measuring each dimension on a 5-point rating scale. For the purpose of current study only five sub-scales consisting of 25 items were used. These sub scales included Inter-Role Distance (IRD) Role Conflict (RC) Role Overload (RO) Role Ambiguity (RA) and Resource Inadequacy (RIN). In current study negative items were reverse scored i.e., for negative items 1 = Strongly Agree (1) and Strongly Disagree (5). These scores were then added to get a composite score in order to measure level of Organizational Role Stressors among the public sector paramedics of KP. Higher score on the scale indicates high effect outcome variable, i.e. Burnout. The alpha coefficient of the original scale is 0.86 while of the translated version is 0.94—indicating high reliability of the scale (Teven, et al., 1998).

Maslach Burnout Inventory (MBI)

The Maslach Burnout Inventory developed by Maslach, and Jackson (1986) consists of 21 items and three sub-scales, namely (a) Emotional Exhaustion (9 items) characterized by loss of feelings and concern, loss of trust, interest and spirit, (b) The Depersonalization (5 items), characterized by negative shift and overtime in response to others, and (c) and Personal Accomplishments (8 items). By using internal consistency the reliability coefficient for the sub-scales of MBI determined are .90 for the Emotional Exhaustion (EE) .79 the Depersonalization, (D) and .71 for Personal Accomplishment (PA). The test-retest reliability for sub-scales are .82 for the EE, .60 for D and .80 for PA. Although there co-efficiencies range from low to moderately high but all are significant beyond .001 level.

Social Support Scale (SSS)

The Social Support Scale was developed by Balfour and Wechsler (1996). It was translated and back translated in the current study in Urdu. It consists of three sub-scales namely (a) Administrative

Support,(b) Colleagues Support and (c) Supervisory Support. Each sub-scale consists of six items which are rated on 5-point Likert scale. The reliability value for the present sample is .83.

Organizational Commitment Scale (OCS)

The Organizational Commitment Scale was developed by Moday, Steers and Porter (1979). The Urdu version consists of 15 items. Each item is scored on 5- point Likert type scale ranging from Never (1) to Always (5). The alpha reliability coefficient for the present sample is .65.

Procedure

After getting permission from the concerned authorities, paramedical staffs were approached and were explained purpose of the study. The demographic information sheet concerning the gender, age and experience and five scales were given to them . The respondents were assured that the responses will be used only for research purpose and will be kept confidential. They were requested to read each statement carefully and respond as accurately and honestly as possible by checking the option that come closest to their personal feelings and experiences. There was no time limit for the completion of the scales, however, the average time to complete the questionnaires was 40 to 45 minutes. At the end of each session participants and hospital administration were thanked for their co-operation.

Results

Following translation, a sample of (N=120) paramedics was collected in order to assess the internal consistency of the translated instrument. The scales were administered on the sample and the respondents were asked to provide feedback if they faced any difficulty in understanding the items. Item-total correlation was computed, and alpha reliability of the scales was calculated.

The results showed that one item from the Inter Role Distance and one item from the Emotional Exhaustion sub-scale of the Maslach Burnout Inventory and two items from the Organizational Commitment Scale were found not significantly related to their respective total sub-scale/scale score.

Table 1: Means, Standard Deviations, and Item-Total Correlations for Five Sub-Scales of Organizational Role Stress Scale (N=120)

Item No	M	SD	r	p
1	2.46	1.17	.54	.000
2	2.93	1.14	.74	.000
3	2.72	1.03	.68	.000
4	2.80	1.22	.73	.000
5	2.75	1.16	.12	.170
6	2.67	1.30	.67	.000
7	2.56	1.29	.66	.000
8	2.82	1.13	.63	.000
9	2.64	1.15	.63	.000
10	2.54	1.18	.53	.000
11	2.70	1.21	.49	.000
12	2.69	1.21	.69	.000
13	2.69	1.21	.65	.000
14	2.91	1.23	.65	.000
15	3.05	1.23	.56	.000
16	2.48	1.17	.63	.000
17	2.46	1.24	.67	.000
18	2.58	1.12	.59	.000
19	2.6	1.18	.50	.000
20	2.5	1.17	.59	.000
21	2.33	1.22	.65	.000
22	2.64	1.11	.56	.000
23	2.57	1.03	.54	.000
24	2.63	1.11	.55	.000
25	2.41	1.06	.65	.000

Results in above table show that except for item no 5 of sub-scale of the IRD all the items of five sub-scales of the ORS are significantly correlated with their total sub-scale scores.

Table 2: Means, Standard Deviations, and Reliability Coefficient of Sub-Scale of Organizational Role Stress Scale (N=120) (Items =10)

Items	<i>M</i>	<i>SD</i>	Reliability Coefficient
IRD	16.66	4.55	.68
RO	13.24	3.79	.61
RIN	14.29	3.78	.58
RA	12.62	3.57	.57
RC	12.57	3.31	.55

Table 2 shows descriptive statistics and alpha reliability coefficients of all the five sub-scales of the ORS. According to the results the alpha of all sub-scales is within except-able range.

Table 3: Inter-Scale Correlations

S #		I	II	III	IV	V
1	IRD	-				
2	RO	0.51	-			
3	RIN	0.39	0.28	-		
4	RA	0.34	0.41	0.047	-	
5	RC	0.49	0.43	0.18	0.54	-

Table 3 shows that there is significant correlation among sub-scales of the ORS.

Table 4: Means Standard Deviations, and Item-Total Correlations of Job Satisfaction Scale (N=120) (Items =5)

Items	<i>M</i>	<i>SD</i>	γ	<i>P</i>
1	3.28	1.37	.49	.000
2	3.70	1.19	.29	.001
3	3.30	1.21	.53	.000
4	3.03	1.06	.63	.000
5	3.73	1.04	.28	.000

Results in table no 4 reveal that all items of the Job Satisfaction Scale are significantly correlated with total score of the scale which shows that the scale is reliable having internal consistency.

Table 5: Means Standard Deviations and Item- Total Correlation of Organizational Commitment Scale (N=120) (Items =15)

Item No	<i>M</i>	<i>SD</i>	γ	<i>P</i>
1	3.57	1.25	.49	0.43
2	3.38	1.09	.23	0.56
3	3.84	1.25	.95	0.28
4	3.08	1.39	15	0.40
5	3.08	1.22	.07	0.54
6	3.53	1.17	.37	0.49
7	2.68	1.26	.28	0.24
8	3.34	1.25	.30	0.50
9	3.42	1.13	.31	0.24
10	3.4	1.25	.42	0.50
11	3.64	1.17	.52	0.12
12	3.44	1.26	.42	0.19
13	3.37	1.19	.20	0.40
14	3.55	1.29	.32	0.45
15	3.93	1.27	.95	0.09

Result in above table reveals that all items of the Organizational Commitment Scale have correlation with the total score.

Table 6: Means, Standard Deviations, and Item- Total Correlation of Supervisory Support Sub-Scale of Social Support Scale (N=120) (Items =6)

Item No	<i>M</i>	<i>SD</i>	γ	<i>P</i>
1	3.00	1.25	.07	0.70
2	2.98	1.23	.24	0.62
3	3.02	1.26	.05	0.71
4	2.42	1.25	.45	0.42
5	3.47	1.08	.33	0.60
6	3.15	1.22	.01	0.60

Table 6 shows that all items of the supervisory support sub-scale of the Social Support Scale are correlated with the total score.

Table 7: Mean, Standard Deviations and Item Total Correlation of Colleague Support Sub-Scale of the Social Support Scale (N=120) (Items =6)

Item No	<i>M</i>	<i>SD</i>	γ	<i>P</i>
12	3.49	1.10	0.3	0.72
13	3.59	1.12	.44	0.60
14	3.16	1.16	.05	0.53
15	2.57	1.18	.40	0.34
16	3.57	1.16	.59	0.63
17	3.59	1.22	.39	0.62

Table 7 shows that all items of the colleague support sub-scale of the Social Support Scale are correlated with the total score.

Table 8: Means, Standard Deviations, and Item- Total Correlation of Administrative Support Sub-Scale of Social Support Scale (N=120) (Items =6)

Item No	<i>M</i>	<i>SD</i>	γ	<i>P</i>
1	2.83	1.23	.14	0.60
2	3.00	1.18	.18	0.72
3	2.61	1.20	.26	0.65
4	2.32	1.14	.44	0.44
5	3.05	1.30	.02	0.70
6	3.21	1.35	.05	0.67

Results in table 8 show that all items of the Administrative Support sub-scale of the Social Support Scale are correlated with the total score.

Table 9: Means, Standard Deviations, and Item- Total Correlation of Emotional Exhaustion Sub-Scale of the Maslach Burnout Inventory (N=120) (Items =8)

Item No	<i>M</i>	<i>SD</i>	γ	<i>P</i>
1	2.36	1.12	.48	0.56
2	2.73	1.18	.27	0.59
3	2.32	1.14	.65	0.64
4	2.46	1.2	.49	0.61
5	2.36	1.2	.57	0.5
6	3.28	1.18	.33	0.1
7	2.42	1.25	.45	0.6
8	2.22	1.22	.58	0.53

Results in table 9 indicate item total correlation of the Emotional Exhaustion sub-scale of the Maslach Burnout Inventory.

Table 10: Means Standard Deviations, and Item-Total Correlation of Depersonalization Sub- Scale of the Maslach Burnout Inventory(N=120) (Items =5)

Item No	<i>M</i>	<i>SD</i>	γ	<i>P</i>
1	2.13	1.26	.94	.71
2	2.3	1.31	.58	.72
3	2.34	1.16	.52	.76
4	2.16	1.3	.73	.67
5	2.18	1.14	.79	.66

Results in above table demonstrate correlation of Depersonalization sub-scale of the Maslach Burnout Inventory with total score.

Table 11: Means, Standard Deviations, and Item- Total Correlation of Personal Accomplishment Sub- Scale of Maslach Burnout. (N=120) (Items =8)

Item No	<i>M</i>	<i>SD</i>	γ	<i>P</i>
1	3.22	1.08	.11	.62
2	3.48	1.21	.49	.71
3	3.16	1.15	.12	.58
4	3.21	1.11	.18	.54
5	3.38	1.16	.15	.67
6	3.72	1.19	.52	.61
7	3.23	1.16	.20	.52
8	2.27	1.05	.20	.50

Table 11 shows correlation of Personal Accomplishment sub-scale of Maslach Burnout Inventory with total score.

Discussion

The main purpose of the study was to determine psychometric proprieties of the instruments to be use in different public health sectors of KP health. For this purpose, a sample of (N=120) paramedical staff from different public sector health provider of KP were collected through stratified sampling technique. The instruments were administered and their outcomes were subjected to statistical analyses for testing the psychometric properties of the items and of the scales overall. The item analysis was conducted by using the technique of item- total correlation. The category or domain wise item total correlation was also carried out. The results of item analyses revealed that except one item of the ORS all items were significantly correlated with the total score of the scale. Inter scale correlation indicates reliability of sub-scales which provides evidence for construct validity of the scales.

For the Maslach Burnout Inventory the item analysis was conducted by using the technique of item-total correlation. The results revealed that except one item in the Burnout Inventory all items were significantly correlated with the total score of the scale.

The alpha reliability coefficients were computed as estimates of the internal consistency of the scales as all the instruments were supposed to measure continues variables. The determination of reliability is an essential step of the variables. The results shown in table no,1, 2 and 3 suggest that five sub-scales of the ORS have internal consistency but the internal consistency of other 5 sub-scales could not be determined which indicates these are not relevant to measure the relationship between variables.

All of the five scales were analyzed in term of their sub-scales as these sub-scales are independently used to measure distinct dimensions, especially the ORS, the MBI and the Job Satisfaction Scale. Therefore, in the light of the results, it is concluded that these scales can be used not only in the West but in Pakistan as well. The translated version of the scales can be used by researchers to investigate the organizational stressors and outcome variables more thoroughly in the Pakistani population.

Implications

There was a lack of the translated version of the above mentioned scales to measure the variables of role stressors. The translated and adopted scales in current study will have practical implication in the public sector paramedics of KPK in order to measure organizational roles stressors and personal and organizational outcome among them.

Limitations of the study

Several limitations of our work must be noted. Although our samples of paramedics were selected carefully to provide variability in situational characteristics and to test all kinds of paramedics but additional samples will be needed to measure the validity of the findings of current study and to charter out other interconnecting aspects of burnout phenomenon. Another limitation of this research is due to problems associated with the response bias and common method variances, common problem which plague the entire questionnaire-based research.

Recommendations

Future researchers are advised to conduct cross-language validation of the currently translated versions in order to further establish its credibility. Future studies should be conducted to measure these variables on physicians and surgeons in the health sectors and other sectors such as education i.e. secondary school, college and university teachers.

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