



Research article

Validation of the Nepalese version of Recovery Experience Questionnaire

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ABSTRACT

People with stressful situations tend to experience lower psychological well-being highlighting the importance of involvement in activities or strategies that have the potential to promote recovery after stressful work situations. This study aimed to validate the Nepalese version of the Recovery Experience Questionnaire (REQ-N), which evaluates how individuals unwind and recuperate from work in their leisure time. Registered nurses of three university hospitals ($N = 438$) in Nepal were asked to complete the REQ-N voluntarily and the data was analyzed using SPSS-20 and AMOS. Reliability was examined by using the Cronbach alpha coefficient. Factorial validity was examined by using exploratory and confirmatory factor analysis. Convergent validity was examined by examining the relationships with psychological distress, overall health, happiness, job performance and job satisfaction. Cronbach's alpha coefficients for four subscales ranged from 0.67 to 0.70. A hypothesized four-factor model fitted better to the data. As expected, mastery and control subscales correlated with psychological distress, overall health, happiness, job performance, and job satisfaction. However, psychological detachment subscale correlated with poor health and relaxation subscale correlated with low job satisfaction. The REQ-N displayed an acceptable level of internal-consistency reliability. The theory-based four-factor structure and the association with psychological distress, overall health, happiness, job performance and job satisfaction for mastery and control experience subscales supported the construct validity (including factor-based validity). However, some of the model fit statistics could not meet the minimum recommendations suggesting a need of a large study involving a heterogeneous population. Also, unexpected findings for psychological detachment and relaxation may reflect the culture and values of Nepalese people and need further research.

1. Introduction

People with stressful situations tend to experience lower psychological well-being (De Lange et al., 2003; Demerouti et al., 2009) highlighting the importance of involvement in activities or strategies that have the potential to promote recovery after stressful work situation and avoid such adverse effects (Eden, 2001). Considering this fact, there has been a growing interest in the examination of not only stress but also its opposite process known as recovery (Sonnetag and Fritz, 2007). The concept of recovery has been defined as a physiologic process of psycho-physiological unwinding after exposure to a stressful situation (Geurts and Sonnetag, 2006).

Earlier studies on recovery activities after work paid attention to vacation effects (Westman and Eden, 1997; Fritz and Sonnetag, 2006; De Bloom et al., 2009) and week-end effects (Fritz and Sonnetag, 2005)

and showed that long vacation effects faded out gradually and week-end effects did not show significant recovery. Sonnetag and Fritz (2007) suggested that recovery during leisure time after work might be useful to improve well-being with highlighting the role of recovery as an underlying psychological process. In this regard, recovery may not be an activity per se but can be the feeling of relaxation or disconnection from work, that helps people recover from a stressful situation. Sonnetag and Fritz developed an instrument (Recovery Experience Questionnaire) to assess the underlying psychological process that can help one recover from work. It has 16 items. Respondents are asked to rate their level of experience as 1 (strongly disagree) to 5 (strongly agree) during their free time after work. The development of this questionnaire was based on the conservation of resource theory (Hobfoll, 1998) and the effort-recovery model (Meijman and Mulder, 1998). Conservation of resource theory is based on the assumption that people strive to protect, retain, and build

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resources (e.g. objective resources, conditions (marriage, tenure, and seniority), personal characteristics, and energies) (Hobfoll, 1998). Stress occurs when an individual either loses resources or is threatened to lose resources or fails to gain resources back after investment. However, during the circumstances when an individual is not experiencing taxing stress, the individual is motivated to enrich the resource pool that can be used as needed (Hobfoll, 1998). On the other hand, Effort-Recovery Model by Meijman and Mulder (1998) assume that effort expenditure at work leads to load reaction such as fatigue or physiological activation. Under normal conditions, once the individual is no longer exposed to the work or similar demands, load reactions are reversed, and recovery occurs. It is most important in this theory that the functional systems taxed during work will not be called upon any longer.

The Recovery Experience Questionnaire captures four core functional aspects of recovery (Sonnentag and Fritz, 2007) namely: psychological detachment, relaxation, mastery and control experiences. Psychological detachment from work is the subjective experience of disengaging from work-related tasks or feeling a sense of distance from the workplace thereby naturally focusing their thoughts on other activities (Sonnentag & Fritz). Thus, it is not only being away from the physical presence from the workplace during off-job time but also distance himself/herself from work psychologically. Experiencing psychological detachment, no further demands are made on functional systems called upon during work thereby helping preserve resources. Thus, current research hypothesized that psychological detachment will be positively associated with job satisfaction, job performance, overall health, happiness, and negatively associated with psychological distress. Previous studies showed that experience of psychological detachment is related to reducing fatigue and increasing positive affective states (Sonnentag et al., 2008; Sonnentag and Bayer, 2005). However, in some studies, psychological detachment experience has shown a negative association to the well-being (Fritz and Sonnentag, 2006; Panthee et al., 2014; Shimazu et al., 2012; Shimazu et al., 2016). To explore these inconsistencies, researchers have assessed its curvilinear relationship (Fritz & Sonnentag; Shimazu et al., 2016) and found that job performance increased when psychological detachment experience increases from low to intermediate level, however, it did not increase further from an extremely high level of psychological detachment experience. Similarly, moderate levels of psychological detachment experience was associated with the highest levels of work engagement, whereas very low and very high levels of psychological detachment experiences were associated with lower levels of work engagement among Japanese workers. Thus, in this research also, the researchers are willing to check its curvilinear relationship.

Relaxation is the experience of low sympathetic activation thereby increasing positive affect. However, some degree of relaxation experience can be achieved by performing small activities such as taking a light walk in a peaceful environment. Other low activation states are meditation, yoga, sleep, watching a favorite TV channel, reading magazine or book etc. To get the benefit from relaxation there should also not be further demands on functional systems called upon during work as in psychological detachment (Sonnentag and Fritz, 2007). Relaxation experiences can reduce the deleterious effects of stress at work. For instance, fatigue from work and fostering life satisfaction (Sonnentag et al., 2008). Thus, current research hypothesizes that relaxation experience will be positively associated with overall health, happiness, job performance, job satisfaction and negatively associated with psychological distress.

Mastery experiences are experiences of the activities that typically emerge from challenging situations that result in some kind of success or achievement, for instance, when learning a new language or when engaging in a demanding hobby such as painting or arts etc. (Sonnentag et al., 2017). Those activities are challenging without overtaxing the capabilities of the individual and provide learning opportunities so that the individual can get a sense of achievement and competence. Although individuals need to invest their energy to get the mastery experiences, it is supposed that these experiences help build up new internal resources

such as skills, competencies, and self-efficacy (Sonnentag and Fritz, 2007; Fritz & Sonnentag, 2005, 2006) facilitating the recovery process. Thus, current research hypothesizes that mastery experience will be positively associated with overall health, happiness, job performance, job satisfaction and negatively associated with psychological distress.

Control during leisure time is the experience of deciding oneself about what to do during leisure time and how to do it (Sonnentag et al., 2017). Here, an individual chooses the specific activity he/she prefers most from available many options. Therefore, control experiences during leisure time are supposed to play an important role in the recovery process by increasing self-efficacy and feelings of competence thereby increasing well-being (Sonnentag and Fritz, 2007). Thus, current research hypothesizes that control experience will be positively associated with overall health, happiness, job performance, job satisfaction and negatively associated with psychological distress.

Recovery Experience Questionnaire is considered an economic and reliable approach to assess an individual's unwinding and recuperation process (Sonnentag and Fritz, 2007) and has widely been used to explore the recovery experience after work in the developed countries. Furthermore, it has been confirmed that it is a useful tool in the endeavor to better understand the mechanisms underlying the effects of job stressors on the individual (Sonnentag and Fritz, 2007; Shimazu et al., 2012). However, it has not been applied in a low-income county so far.

In Nepal, almost a quarter of the population lacks access to even the most basic health care services (Rai et al., 2002; Department of Health Services, 2012). The availability of trained human resources has been one of the key hindrances in the delivery of primary health care services. Nurses are frontline service providers in the health-care system in Nepal and are generally present at their allocated place (94%) in comparison with the doctors (88%) (South Asian Institute for Policy Analysis and Leadership (SAIPAL), 2010). Furthermore, nurses have a crucial role in improving the health of the community both in tertiary and grass root level. However, psychological job stress is prevalent among nurses that affect the physical and mental health of the nurse (Bardhan et al., 2019). In addition, nurses' psychological health predicts the quality of patient care (Chen et al., 2016). Thus, it is important to evaluate the well-being of the nurses so that they can provide quality patient care.

Recovery experience might be culturally different, and it is important to measure recovery experience using a standard questionnaire. However, to apply the concept of recovery into the Nepalese context, the necessary first step is the validation of REQ in Nepal. Therefore, this study aimed to validate the REQ-N among hospital nurses in Nepal.

2. Methods

English version of the Recovery Experience Questionnaire (REQ) (Sonntag and Fritz, 2007) was translated into Nepali using the guideline (Wild et al., 2005). In summary, the questionnaire was translated from English into Nepalese by two independent translators and the back translation was performed by the translators unaware of the original items of REQ. The back-translated questionnaire was compared to the original English version by the authors. Some ambiguities were discussed with translators and the original developer of the questionnaire (SS) to prepare the first Nepalese version of REQ. As with our previous researches (Panthee et al. (2017); Panthee et al., 2010), face validation of the questionnaire was performed. Briefly, the questionnaire was distributed among 10 Nepalese working in Japan and comments and suggestions regarding wording and the layout were received. Based on the suggestions, the wordings, meanings and content of each item questionnaire was slightly modified. The refined questionnaire was then pilot tested among 20 Nepalese working in Japan.

Five hundred eighty-seven sets of questionnaires were distributed to the nurses working at three university hospitals in Kathmandu, Nepal and received 455 responses. Each completed questionnaire was put into an envelope and then sealed by the participants and collected through the in-charge of the respective department. After the removal of responses

with missing values on the key items, 438 responses were used for final data analysis, representing a final response rate of 75%.

2.1. Measures

The measures used in this study were recovery experiences, psychological distress, job performance, happiness, health, job satisfaction, and demographic characteristics.

2.1.1. Recovery experiences

Recovery experiences were assessed using the Nepalese version of REQ. It is a 16-item questionnaire with four subscales; psychological detachment, relaxation, mastery, and control, that demonstrate the underlying dimensions of recovery experiences. Each subscale has 4 items. All items are scored on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Respondents were asked to respond “during free time after work” as found in the original REQ.

2.1.2. Psychological distress

Psychological distress was assessed using the Nepalese version of psychological distress questionnaire (K6) (Kessler et al., 2003b) translated for this study. The K6 questionnaire has 6 items that reflect both anxiety and depression scored on a 5-point Likert scale ranging from 1 (always) to 5 (never). For the analysis in this study, the responses were re-coded as 1 (never) to 5 (always). Cronbach's alpha coefficient for this study sample was .81.

2.1.3. Job performance

Job performance was assessed using a single item taken from the World Health Organization and Work Performance Questionnaire (HPQ) (Kessler et al., 2003a) which was translated for this study. It asks the participants to rate their overall work performance during the past 30 days. The item was scored on an 11-point Likert scale ranging from 0 (worst performance) to 10 (best performance).

2.1.4. Happiness

Happiness was assessed using a single item happiness question (Libano et al., 2010) asking the participants how happy they are with their overall life. The item was scored on a 4-point Likert scale ranging from 1 (very unhappy) to 4 (very happy).

2.1.5. Overall health

Overall health was assessed using a self-constructed questionnaire with a single-item question asking the participants to rate their general health. The item was scored on a 5-point Likert scale ranging from 1 (excellent health) to 5 (poor health). However, in the analysis it was re-coded as 1 (poor health) to 5 (excellent health).

2.1.6. Job satisfaction

Job satisfaction was assessed using a single-item job satisfaction questionnaire (Scarpello & Campbell, 1983) which asks participants to rate their general job satisfaction level. The item was scored on a 5-point Likert scale ranging from 1 (extremely satisfied) to 5 (not satisfied at all). For the analysis, the responses were re-coded as 1 (not satisfied at all) to 5 (extremely satisfied).

2.1.7. Demographic characteristics

Demographic characteristics included age (in years), marital status (in five categories: married, unmarried, divorced, widowed), work position (in three categories: general staff, ward in-charge, supervisor), education (in four categories: staff nurse, BN, MN, PhD), religion (in four categories: Hinduism, Buddhism, Christian, and Others), family type (in four categories; nuclear, joint, extended, and alone), work hour/week, work experience (in years), and work place was asked with open-ended questions.

Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) was used to confirm its factor structure. Factors with eigen values of greater than one were extracted, and principal axis-factoring and promax rotation were used to obtain final factor structure. CFA was conducted using structural equation modeling (SEM) methods as implemented by AMOS (Arbuckle, 1997) version 21. Maximum Likelihood estimation was used to examine goodness of fit of the models using following criteria (Schermelleh-Engel et al., 2003) on goodness of fit indices; GFI $\geq .95$, AGFI $\geq .90$, PGFI $\geq .80$, TLI $\geq .90$, CFI $\geq .90$, RMSEA, $\leq .08$, and AIC the smaller the AIC the more parsimonious the model. To confirm its convergent validity, correlation analysis was conducted with psychological distress, job performance, happiness, overall health, and job satisfaction. EFA, correlation analysis, reliability analysis, and other descriptive analyses were conducted using SPSS version 20. To examine the reliability of the instrument, Cronbach's alpha coefficient was calculated.

2.2. Ethics approval and consent to participate

Ethical approval for the research was obtained from The University of Tokyo (serial number: 3933) and Nepal Health Research Council. The objective of the study was explained via the participants' information sheet and a filled questionnaire was considered as the consent to participate. The participants who did not consent were requested either not to return or return the empty questionnaire.

3. Results

3.1. Demographic characteristics

The mean age of the participants was 30 years. About 55% of the participants were married. Half of the respondents (51%) were staff nurse and only 4% had a master's degree in nursing which was the highest academic degree of participants of this study. About 90% were Hindu and about 63% had a nuclear family, the mean working hour was 47 h/week. The mean work experience was 9 year.

3.2. Factorial validity

Before conducting EFA, all 16 items' response with mean and SD, and the percentage of each response category (Table 1) was explored. The lowest mean score 1.91 (SD = 1.08) was observed for item number 5 (I don't think about work at all) which is related to psychological detachment followed by 2.07 (SD = 1.10) for item number 10 (I distance myself from my work) which is also related to psychological detachment. The highest mean score 4.42 (SD = 0.71) was observed for item number 2 (I learn new things) which is related to mastery. Table 2 shows the result of EFA. In line with our expectations, four factors with eigen values of greater than one were extracted. However, cross loading was observed for two items. For instance, item 13 (I take care of things the way that I want them done which was related to control) was loaded to both relaxation and control and item 6 (I kick back and relax which was related to relaxation) was loaded to psychological detachment. Regarding inter-factor correlation for the factors extracted in exploratory factor analysis as of Table 2, it was highest between psychological detachment and relaxation (.56), followed by control and mastery (.49), psychological detachment and mastery (-.34), relaxation and control (.26), psychological detachment and control (.06) and the lowest between relaxation and mastery (-.04).

In the next step, CFA was conducted. Though the four-factor structure was found in the EFA, some items were loaded differently from the original REQ. Hence, the current research assessed three models (i.e., one-factor model, hypothesized four-factor model, and four-factor model obtained from EFA result). As shown in Table 3, both the four-factor models fitted the data better than the one-factor model which hypothesized that all items measuring the four constructs of recovery experience

Table 1. Mean, Standard Deviation, and percentage of each item of Recovery Experience Questionnaire (N = 438).

No.	Items	Mean	SD	Strongly disagree % 1	Disagree % 2	Neither agree nor disagree % 3	Agree% 4	Strongly agree % 5
1	I feel like I can decide for myself what to do (Contr1)	4.34	0.75	0.7	1.8	7.3	43.2	47
2	I learn new things (Mast1)	4.42	0.71	0.5	2.1	4.1	41.6	51.8
3	I forget about work (PD1)	2.48	1.19	24.9	31.1	19.9	19.4	4.8
4	I decide my own schedule (Contr2)	3.88	1.12	4.8	9.6	11.6	40.4	33.6
5	I don't think about work at all (PD2)	1.91	1.08	44.5	34	10.5	7.3	3.7
6	I kick back and relax (Relx1)	2.09	1.18	39.7	31.5	12.8	11.2	4.8
7	I seek out intellectual challenges (Mast2)	3.85	0.80	0.9	5.3	19.9	55.7	18.3
8	I do things that challenge me (Mast3)	3.86	0.86	1.6	5.3	19.2	52.7	21.2
9	I determine for myself how I will spend my time (Contr3)	4.25	0.79	0.7	3.2	8.0	46.3	41.8
10	I distance myself from my work (PD3)	2.07	1.10	36.1	38.6	11.4	10.0	3.9
11	I do relaxing things (Relx2)	3.24	1.23	10.5	19.6	20.3	33.8	15.8
12	I use the time to relax (Relx3)	2.89	1.25	14.8	29.9	15.5	30.1	9.6
13	I take care of things the way that I want them done (Contr4)	3.63	1.05	3.7	11.9	23.1	40.0	21.5
14	I take time for leisure (Relx4)	3.10	1.20	9.6	26.3	20.8	31.1	12.3
15	I do something to broaden my horizons (Mast4)	4.02	0.73	0.9	2.5	13.0	60.3	23.3
16	I get a break from the demands of work (PD4)	2.70	1.23	17.6	32.9	19.9	20.5	9.1

Relx = Relaxation, PD = Psychological detachment, Mast = Mastery, Contr = Control, No. = Item number, items are numbered in the same way as in the original measures (Sonnentag and Fritz, 2007).

Table 2. Result of exploratory factor analysis with principal axis factoring method and promax rotation (N=438).

No.	Items	Factors			
		Relaxation	Psychological detachment	Mastery	Control
12	I use time to relax (Relx)	.71	-.00	-.06	-.04
14	I take time for leisure (Relx)	.67	-.02	.01	.02
11	I do relaxing things (Relx)	.65	-.02	.00	-.02
13	I take care of things the way that I want them done (Contr)	.36	-.01	.04	.35
5	I don't think about my work (PD)	-.14	.82	.06	.03
10	I distance myself from my work (PD)	.19	.56	-.01	-.00
3	I forget about work (PD)	-.04	.55	-.05	.02
6	I kick back and relax (Relx)	.20	.46	-.08	.01
16	I get break for the demands of work (PD)	.33	.34	-.08	-.03
7	I seek out intellectual challenges (Mast)	-.01	.06	.86	-.17
2	I learn new things (Mast)	-.01	-.03	.54	-.00
8	I do things that challenge me (Mast)	-.09	.02	.52	.19
15	I do something to broaden my horizons (Mast)	.08	-.10	.43	.15
4	I decide my own schedule (Contr)	-.07	.07	-.15	.73
9	I determine for myself how I will spend my time (Contr)	-.01	.00	.11	.65
1	I feel like I can decide for myself what to do (Contr)	.03	-.04	.11	.49
Total % of variance explained		18.95	15.19	3.98	3.46
Cumulative % of variance explained		18.95	34.15	38.08	41.54

Relx = Relaxation, PD = Psychological detachment, Mast = Mastery, Contr = Control, higher loadings are presented in bold, No. = Item number, items are numbered in the same way as in the original measures (Sonnentag and Fritz, 2007).

Table 3. Results of confirmatory factor analysis: Comparison of goodness-of-fit indices between one factor and four factor model of recovery experience questionnaire (N = 438).

Model	GFI	AGFI	PGFI	TLI	AIC	CFI	PNFI	RMSEA	Chi-square	df	P
One-factor model (a)	.70	.62	.54	.42	1027.40	.48	.39	.13	963.40	104	.00
Four-factor model (b)	.91	.87	.65	.82	417.88	.85	.66	.07	341.88	98	.00
Four-factor model (c)	.92	.89	.66	.85	372.88	.88	.68	.07	296.88	98	.00

GFI = Goodness of Fit Index, AGFI = Adjusted Goodness of Fit Index, PGFI = Parsimony Goodness of Fit Index, TLI = Tucker Lewis Index, AIC = Akaike Information Criterion, CFI = Comparative Fit Index, PNFI = Parsimony Normed Fit Index, RMSEA = Root Mean Square Error of Approximation. (a) All items measuring the four constructs of recovery experience load on one general recovery experience factor. (b) Each item loads on a hypothesized factor (a Four-factor model), (c) Four-factor structure obtained from EFA in Table 2.

load on one general recovery experience factor. Hypothesized four-factor model and model obtained from EFA did not differ much and all standardized estimates for the hypothesized four-factor model were >0.4 (Figure 1). Therefore, in this study, the hypothesized four-factor model was selected for further analysis so that the results can be compared with other international studies.

Regarding inter-factor correlation, for hypothesized model, it was highest between psychological detachment and relaxation (.55), followed by mastery and control (.37), relaxation and control (.23), psychological detachment and mastery (-.21), relaxation and mastery (-.10) and the lowest between psychological detachment and control (.07).

3.3. Internal consistency

Cronbach's alpha was computed to check the REQ's reliability. Cronbach's alpha for psychological detachment was 0.70, relaxation 0.70, mastery 0.70, and control 0.67.

To test the construct validity, correlation analysis between REQ and well-being variables (Table 4) was conducted. It was found that psychological detachment was significantly positively associated with psychological distress; meaning that the greater the individual detaches from his/her work the higher the distressed the individual would be. In addition, a negative association of psychological detachment with job satisfaction and happiness was revealed. Similarly, relaxation had a significant negative association with job satisfaction. Mastery had a significant positive association with overall health, happiness, and job performance and significant negative association with psychological distress and control had a significant negative association with psychological distress and significant positive association with job satisfaction, overall health, happiness, and job performance.

The curvilinear relationship was also checked using regression analysis with curve estimation (Shimazu et al., 2012, 2016). It was found significant standardized betas of squared psychological detachment and psychological distress ($\beta = -.46, p = .04$). The curve showed that at intermediate levels of psychological detachment, the distress level became high and did not further increase and distress level gradually decreased

when psychological detachment further increased. Except for psychological distress, all linear effects were negative. The standardized beta of squared psychological detachment and job satisfaction and happiness were not significant ($\beta = .23, p = .31; \beta = .16, p = .45$, respectively) and it was also non-significant with squared relaxation and job satisfaction ($\beta = -.08, p = .74$) accepting linear relationship.

3.4. Characteristics of the Nepalese version of Recovery Experience Questionnaire (REQ-N) across demographic subgroups

The use of recovery experience was different according to demographic characteristics. For instance, there was a significant difference in psychological detachment and relaxation experience according to age, marital status and position. A significant difference was found in the mastery experience based on marital status, position, and religion. In addition, a significant difference in the control experience was found according to age and position (Table 5).

4. Discussion

Exploratory factor analysis revealed the four-factor structure as seen for the original questionnaire (Sonnetag and Fritz, 2007). However, some of the items were cross loaded. For instance, "I kick back and relax" (item number 6), which was supposed to load on relaxation factor, was loaded to psychological detachment, and "I take care of things the way that I want them done" (item number 13), which was supposed to load on control factor, was loaded to both relaxation and control. The item related to relaxation loaded to psychological detachment was consistent with a previous study (Shimazu et al., 2012) that relaxation and psychological detachment were condensed in one factor. However, in this study, only one item was loaded on psychological detachment. Thus, it was not decided to condense two factors (psychological detachment and relaxation) in one factor. Among different factor structures, the hypothesized four factor model was a good fit. EFA was conducted first to recognize the possible error during adaptation process and to introduce possible cultural differences in the adaptation (Orcan, 2018). However,

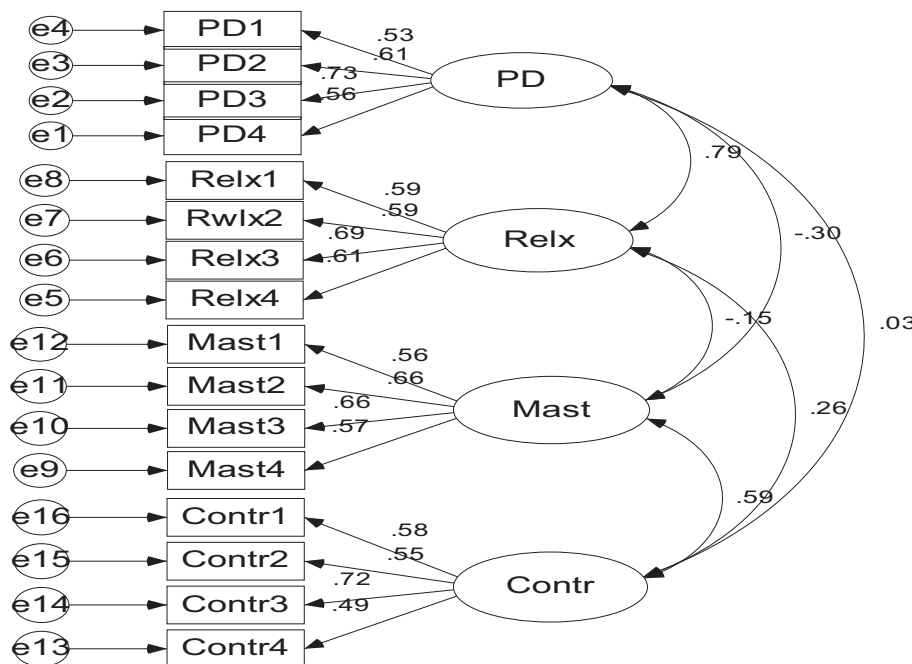


Figure 1. Path diagram of Recovery Experience Questionnaire showing standardized coefficient on hypothesized four factor model, each item represents the item reported as in Table 1. Note: PD = Psychological Detachment, Relx = Relaxation, Mast = Mastery, Contr = Control.

Table 4. Correlation between each subscale of recovery experience questionnaire and psychological distress, job satisfaction, overall health, happiness, job performance, and work hour (N = 438).

	Psychological detachment	Relaxation	Mastery	Control	Psychological distress	Job satisfaction	Overall health	Happiness	Job Performance	Work hour
Psychological detachment	(.70)									
Relaxation	.55**	(.70)								
Mastery	-.21**	-.10*	(.70)							
Control	.07	.23**	.37**	(.67)						
Psychological distress	.14**	.03	-.26**	-.26**	(.81)					
Job Satisfaction	-.18**	-.12**	.09	.13**	-.33	(na)				
Overall health	-.07	-.02	.18**	.17**	-.31**	.31**	(na)			
Happiness	-.19**	-.08	.14**	.14**	-.29**	.36**	.28**	(na)		
Job performance	-.09	-.04	.26**	.23**	-.35**	.22**	.31**	.27**	(na)	
Work hour	.05	.03	.08	-.08	-.03	-.07	-.07	-.00	.01	(na)

Number on parenthesis are coefficient alpha, (na) refers to not available.

** Correlations are significant at the 0.01 level (2 - tailed).

* Correlations are significant at the 0.05 level (2 - tailed).

Table 5. Descriptive statistics and one-way ANOVA of the Nepalese version of Recovery Experience Questionnaire (REQ-N) across demographic variables (N = 438).

Demographic variables	Mean score (SD)				
	n	Psychological detachment	Relaxation	Mastery	Control
Age group (years)					
1) 18-30	284	2.35 (.82) ***	2.89 (.90) *	4.01 (.56) ns	3.98 (.61) *
2) 31-45	98	2.35 (.89)	2.83 (.85)	4.05 (.54)	4.05 (.73)
3) 46-59	56	1.90 (.70)	2.54 (.85)	4.2 (.6)	4.22 (.75)
Marital status					
1) Married	237	2.24 (.84) **	2.73 (.84) **	4.04 (.57) *	4.07 (.65) ns
2) Unmarried	196	2.34 (.81)	2.95 (.91)	4.05 (.54)	3.97 (.65)
3) Widow	4	1.81 (.37)	2.12 (.92)	3.62 (.77)	3.75 (1.06)
4) Divorced	1	-	-	-	-
Position					
1) Supervisor	24	2.27 (.81) **	2.68 (.85) *	4.31 (.42) **	4.36 (.46) *
2) Ward in charge	46	1.92 (.70)	2.55 (.80)	4.20 (.40)	4.15 (.66)
3) General staff	368	2.34 (.84)	2.88 (.89)	4.00 (.58)	3.99 (.66)
Type of work					
1) Permanent	154	2.18 (.81) ns	2.70 (.85)*	4.08 (.62) ns	4.17 (.64)**
2) Temporary	236	2.36 (.83)	2.93 (.90)	3.95 (.52)	3.95 (.66)
3) Daily wages	22	2.15 (.93)	2.72 (.88)	4.00 (.60)	3.88 (.63)
Religion					
1) Hinduism	386	2.30 (.84) ns	2.85 (.89) ns	4.04 (.55)*	4.02 (.66) ns
2) Buddhism	45	2.15 (.67)	2.71 (.80)	4.07 (.54)	4.01 (.63)
3) Christian	4	2.75 (1.19)	3.12 (1.53)	3.12 (1.45)	4.43 (.55)
4) Others	3	2.58 (1.50)	2.41 (1.28)	4.08 (.28)	4.16 (.52)
Work experience (years)					
1) 0.1-10	307	2.35 (.84)**	2.91 (.91) **	4.01 (.56) *	3.98 (.62) *
2) 11-20	66	2.38 (.87)	2.77 (.70)	4.01 (.52)	4.04 (.73)
3) 21-30	47	1.96 (.68)	2.60 (.86)	4.27 (.42)	4.26 (.65)
4) 31-39	18	1.80 (.65)	2.25 (.77)	3.97 (.94)	4.15 (.92)

Note: ***p < .001, **p < .01, *p < .05. SD, Standard Deviation; ns, non-significant.

the factor structure obtained from EFA was not superior to the hypothesized four factors though it was conducted in the same data set. There are different arguments that EFA and CFA should be conducted in the different data sets. However, some author suggests that CFA should be conducted firstly in the same dataset before moving to the different dataset to confirm the fit of CFA on new data (Van Prooijen & Van Der Kloot, 2001). Thus, based on the findings of this study further study is needed to confirm its factor structure in different dataset. The internal consistency lies on the acceptable level (Polit and Beck, 2008) for all three subscales except for control. However, most of the previous studies

found >.8 Cronbach's alpha in all subscales (Sonntag and Fritz, 2007; Shimazu et al., 2012).

This study found that psychological detachment and relaxation were negatively associated with mastery. Probably the nurses who used psychological detachment did not use their time for mastery experience or they switched off themselves from their job without considering their mastery experiences. Alternatively, nurses who enjoy their work and find their work interesting may engage in thinking about solutions to work related problems during non-working hours and cannot detach from work. Furthermore, when they repeatedly think about the solution to

problem, they cannot relax (Bennett et al., 2018). Negative association of psychological detachment and mastery was also found in the study of Bennett et al. though insignificant. However, in that study, relaxation was positively associated with mastery (Bennet et al., 2016).

Regarding the correlation between recovery experience, overall health, happiness, psychological distress, job performance and job satisfaction, psychological detachment, and relaxation showed different associations from the expectation. For instance, psychological detachment was positively associated with psychological distress and negatively associated with job satisfaction and happiness, which is opposite to the previous study findings (Sonnetag and Fritz, 2007; Shimazu et al., 2012). The curvilinear relationship between psychological detachment and psychological distress showed that at intermediate levels of the use of psychological detachment, the distress level became high and did not further increase and distress level gradually decreased when the use of psychological detachment further increased. It is similar to previous study (Shimazu et al., 2016). This might mean that individuals who use psychological detachment at an intermediate level have high distress and when they further continue using it, their distress level decreases. In that sense, the mean score of psychological detachment in this study sample was 2.3 which falls under the intermediate level and it is consistent with the results of curvilinear relationship. Therefore, these findings suggest that the use of psychological detachment at intermediate level is detrimental for Nepalese nurses suggesting psychological detachment can be used to improve wellbeing. In the Japanese sample (Shimazu et al., 2012), psychological detachment was negatively associated with work engagement, and in the Egyptian sample (Burke and El-Kot, 2009), none of the recovery experiences were associated with psychological well-being variables such as exhaustion and life satisfaction. Similarly, Poulsen et al., (2014) did not find a significant association between psychological detachment and relaxation with work engagement. Thus, psychological detachment and relaxation may be differently associated with well-being of workers in Nepal as well. As this study was cross-sectional and conducted only in one group of people, further exploration is required to elucidate if psychological detachment and relaxation are useful in the Nepalese population.

On the other hand, mastery and control experience had significant associations with psychological distress, overall health, happiness in line with our expectations showing that mastery and control experience had an important role in the well-being of Nepalese hospital nurses.

In this study, nurses within the age of 18–45 years had more psychological detachment and relaxation experience. But nurses within the age of 46–59 years had more control experience. Probably, younger nurses may have fewer resources to engage in the control experiences. Similarly, unmarried nurses experienced more psychological detachment, relaxation, control, and mastery. It seems that nurses who are not married are fully utilizing recovery strategies, suggesting future studies if marital status affects the use of recovery strategies. General nursing staff had more psychological detachment and relaxation experience, but supervisors had more mastery and control experience. It suggests that supervisors might have more resources to master themselves and thereby develop confidence and self-control. Working hours also did not show a significant relationship.

4.1. Limitations of the study

Though current research collected data from government, semi-government, and private teaching hospitals, it does not cover the general hospital nurses thus the findings of the study may not be generalized to all nurses of Nepal.

5. Conclusion

In conclusion, the Nepalese version of REQ showed acceptable levels of internal consistency reliability and a four-dimension structure of the original questionnaire is better fitted than factor structure obtained from

EFA. Although, some of the model fit statistics could not meet the minimum recommendations, the Nepalese version of the Recovery Experience Questionnaire can be used in future studies. This study suggested that the concept of psychological detachment and relaxation need to be further explored in the Nepalese context.

Declarations

Author contribution statement

B. Panthee: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Wrote the paper.

S. Panthee: Contributed reagents, materials, analysis tools or data; Wrote the paper.

A. Shimazu, N. Kawakami: Conceived and designed the experiments; Analyzed and interpreted the data.

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The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

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