

Perceived Career Barriers Scale: Validation for a Lithuanian Sample

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Abstract. Career is undoubtedly an essential part of people's lives. Unfortunately, career development does not necessarily go smoothly because various circumstances, such as career barriers, might constrain career development. Therefore, it is important to have valid and reliable instruments that help evaluate and understand this phenomenon. The current study aimed to test the validity of the Lithuanian version of the Perceived career barriers scale. The sample included 382 participants aged from 18 to 63 years ($M = 37.5$ years, $SD = 13.6$). Two hundred twenty-six of the participants were females, 155 were males, and one did not disclose their gender. The Perceived Career Barriers Scale was translated from the German language using the back translation technique. Its construct validity was confirmed by confirmatory factor analysis. Results also showed that the scale is reliable. Convergent validity of the scale was also confirmed – perceived career barriers correlated with career self-efficacy, Past Negative time perspective, Present Fatalistic time perspective, and Future Negative time perspective. The Perceived Career Barriers Scale may be used for further research, although it is recommended to conduct a more comprehensive validity evaluation.

Keywords: career barriers, scale validity.

Suvokiamų karjeros barjerų skalė: validavimas lietuviškoje imtyje

Santrauka. Santrauka. Karjera neabejotinai yra reikšminga žmonių gyvenimo dalis. Deja, karjeros raida dėl įvairių priežasčių, tokių kaip karjeros barjerai, nebūtinai vyksta sklandžiai. Todėl yra svarbu turėti validžių ir patikimų įrankių, kurie padėtų įvertinti ir suprasti barjerų fenomeną. Šiuo tyrimu buvo siekiama įvertinti lietuviškosios Suvokiamų karjeros barjerų skalės validumą. Imtį sudarė 382 dalyviai nuo 18 iki 63 metų ($M = 37,5$ metų, $SD = 13,6$). Tyrime dalyvavo 226 moterys, 155 vyrai ir vienas dalyvis, nenurodęs lyties. Suvokiamų karjeros barjerų skalė buvo išversta iš vokiečių kalbos, taikant atgalinio vertimo metodą. Skalės konstrukcinis validumas buvo patvirtintas, atlikus patvirtinamąją faktoriinę analizę. Rezultatai atskleidė, kad skalė yra patikima. Konvergentinis skalės validumas taip pat buvo patvirtintas – suvokiami karjeros barjerai koreliavo su karjeros saviveiksmingumu, negatyvios praeities laiko perspektyva, fatalistinės dabarties laiko perspektyva ir negatyvios ateities laiko perspektyva. Suvokiamų karjeros barjerų skalė gali būti naudojama tolesniuose tyrimuose, nors rekomenduojama atlikti išsamesnį jos validumo įvertinimą.

Pagrindiniai žodžiai: karjeros barjerai, skalės validumas.

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Introduction

Career is undoubtedly an essential part of people's lives. Unfortunately, career development does not necessarily go smoothly because various circumstances, such as career barriers, might constrain career development. There is no sole conception or classification of career barriers. Various authors consider career barriers as dichotomous and classify them into internal and external (Crites, 1969; O'Leary, 1974; Swanson & Tokar, 1991a, 1991b). Swanson and Tokar (1991b) analysis revealed little support for the internal-external barriers dichotomy. Therefore, they classified career barriers into three categories, where the locus of barriers was not necessarily considered. The three-category system was supported only modestly, too (Swanson & Tokar, 1991b). Lent et al. (2000) argued that external barriers are conceptually distinct from internal barriers and should be analyzed separately. They suggested that internal and external barriers interplay but do not represent a single construct. In the social cognitive career theory, Lent et al. (2000, p. 39) focused only on external barriers and defined them as "negative contextual influences." They argued that career barriers are highly important in one's career because of their power to hinder career progress. Brown and Lent (1996) suggest that perceived barriers can negatively affect career development, even when a person understands that they have the potential to pursue a particular career path. Indeed, research reveals that career barriers are related to various negative aspects – higher levels of vocational indecision (Fort & Murariu, 2018), less career planning (Cardoso & Moreira, 2009), and lower levels of occupational aspirations (Watts et al., 2015).

Considering the significance of the barriers to one's career, it is essential to understand this phenomenon. Therefore, valid and reliable instruments are needed. Following ideas of the social cognitive career theory (Lent et al., 2000), Hirschi and Freund (2014) developed a short 6 item scale that measures perceived career barriers. The Perceived Career Barriers Scale includes various environmental forces (external circumstances, family responsibilities, significant others, labor market, general contextual factors, and general economic situation) that represent one factor and might act as barriers to one's career development. Authors believe that people perceive environmental factors subjectively. The scale has good internal consistency. Construct validity of the instrument was established by finding significant relationships with similar constructs that are theoretically related to career barriers, such as career self-efficacy, career planning, and career decidedness.

The current research aimed to test the validity of the Lithuanian version of the Perceived Career Barriers Scale. Confirmatory factor analysis was conducted to verify the structure of the scale. The reliability of the scale was calculated, using Cronbach's alpha. To test convergent validity, two constructs were chosen – career self-efficacy and time perspective. Career self-efficacy is defined as person's beliefs about their ability to perform various career-related tasks (Lent & Brown, 2006; Lent & Hackett, 1987). Lent et al. (2000) propose that it is not very likely that people perceive barriers in their environment clearly and precisely. Experiencing certain obstacles in the past might shape one's belief to cope with them. Therefore, if people believe they can cope with certain environmental forces,

they might not even consider it a barrier. We hypothesize that career self-efficacy might be related to career barriers because individuals, who think that they can successfully manage their careers, might not perceive certain career obstacles as such. The negative link between career self-efficacy and career barriers was continually replicated in various studies (Cardoso & Moreira, 2009; Hirschi & Freund, 2014; McWhirter et al., 2000).

It is assumed that time perspective also plays an important role in the process of career development (Kairys et al., 2013; Taber, 2013). Time perspective is described as “often nonconscious process whereby the continual flows of personal and social experiences are assigned to temporal categories, or time frames, that help to give order, coherence, and meaning to those events” (Zimbardo & Boyd, 1999, p. 1271). In the Zimbardo Time perspective model (Zimbardo & Boyd, 1999) five time perspectives (Future, Present Hedonistic, Present Fatalistic, Past Positive, Past Negative) were postulated. However, it was recently proposed that Future time perspective should be separated into Future Positive and Future Negative time perspectives (see Carelli et al., 2011). In this study, the later six time perspective model was used.

Future Positive time perspective reflects a focus on the consequences of one’s actions for the future, planning, devoting to future goals, often sacrificing the pleasures of the present (Boniwell & Zimbardo, 2004; Boyd & Zimbardo, 2005). Future Negative time perspective represents a look to the future with anxiety, an expectation of adverse events in the future (Carelli et al., 2011). Present Hedonistic time perspective describes little concern for the consequences of behavior and a strong focus the moment’s pleasures. Present Fatalistic time perspective reflects the belief that external forces govern a person’s life and that their behavior does not lead to anything in life. Such a person views life from a position of helplessness. Past Positive time perspective describes a warm, sentimental, and nostalgic relationship with the past. Past Negative time perspective represents a negative relationship with the past, focusing on adverse, painful events in the past. A person with a highly expressed Past Negative time perspective is conservative and cautious (Boniwell & Zimbardo, 2004; Boyd & Zimbardo, 2005). Time perspective is a broad construct related to future hopes and fears as well as with reminiscence of dealing with obstacles in the past. Consequently, it is considered as a construct related to career barriers.

Based on theoretical postulates (Carelli et al., 2011; Zimbardo & Boyd, 1999) and empirical evidence, we assumed that: a) Future Positive time perspective, which is linked with planning, forecasting, and better career development indicators (Ferrari et al., 2010; Kairys et al., 2013; Taber, 2013), should have negative links with career barriers; b) “negative” time perspectives (Past Negative, Present Fatalistic, Future Negative), that are related to negative career development indicators (Kairys et al., 2013; Taber, 2013), should have positive links with career barriers. Since the results of previous research (Kairys et al., 2013; Taber, 2013) are inconsistent regarding the Past Positive and Present Hedonistic time perspectives, their links to career barriers was not considered as evidence of construct validity.

Methods

Participants

The sample included 382 participants aged from 18 to 63 years. Convenience sampling was applied. Data were collected using a paper-pencil questionnaire. Participation in the research was voluntary, and participants were free to discontinue participation at any time. All of the responses were anonymous. The mean age of participants was 37.5 years ($SD = 13.6$). Two hundred twenty-six of the participants were females, 155 were males, and one did not disclose their gender.

Measurements

Perceived career barriers. Perceived career barriers were measured using the Perceived Career Barriers Scale (Hirschi & Freund, 2014). The scale was translated from the German language using the back translation technique. The scale measures the degree to which various factors act as barriers to one's career development and consists of 6 items that represent these factors: external circumstances, family responsibilities, significant others, labor market, general contextual factors, general economic situation. Example of the item: "External circumstances hinder my career growth." Respondents have to evaluate items using the Likert scale from 1 ("not at all") to 5 ("very much"). The total score is calculated by summing all the items. A higher score indicates a higher level of perceived barriers.

Career self-efficacy. The Lithuanian version of the Career Self-Efficacy Scale (Kossek et al., 1998) was used to measure career self-efficacy. The back translation technique was used to translate the scale from English to Lithuanian. Scale is comprised of 11 items and measures the degree to which a person believes they are capable of managing their career. Example of the item: "When I have something unpleasant to do that will help my career, I stick with it until I am finished." Items are rated on a Likert scale from 1 ("strongly agree") to 5 ("strongly disagree"). A total score is obtained, calculating the average of the items. A higher score indicates a higher level of career self-efficacy. After adding 3 correlations of errors, confirmatory factor analysis confirmed appropriate structural validity of the scale: $\chi^2(41) = 126.60, p < .001$; $RMSEA = .07$; $CFI = .94$; $TLI = .92$. The scale had good internal consistency with Cronbach's $\alpha = .87$.

Time perspective. The Lithuanian version of the short version of the Zimbardo Time Perspective Inventory (Carelli et al., 2011; Košťál et al., 2016; Liniauskaite & Kairys, 2009; Zimbardo & Boyd, 1999) was used to measure time perspective. The measure consists of 18 items divided into 6 scales: Past Negative (PN), Past Positive (PP), Present Hedonistic (PH), Present Fatalistic (PF), Future Positive (FP), and Future Negative (FN). Inventory includes questions such as "I often think of what I should have done differently in my life" (PN), "Familiar childhood sights, sounds, smells often bring back a flood of wonderful memories" (PP), "I take risks to put excitement in my life" (PH), "My life path is controlled by forces I cannot influence" (PF), "I am able to resist temptations when

I know that there is work to be done” (FP), “To think about my future makes me sad” (FN). Each scale consists of 3 items. Participants are asked to evaluate items on a 5-point Likert scale with responses ranging from “very untrue” (1) to “very true” (5). Scores for the scales are calculated by averaging the items. The higher the score, the more expressed the time perspective. Confirmatory factor analysis confirmed 5-factor structure without Present Hedonistic scale: $\chi^2(80) = 211.34, p < .001; RMSEA = .07; CFI = .92; TLI = .89$. Therefore, Present Hedonistic time perspective was excluded from further analysis. Cronbach’s alphas for 5 scales ranged from .62 to .72.

Data analyses

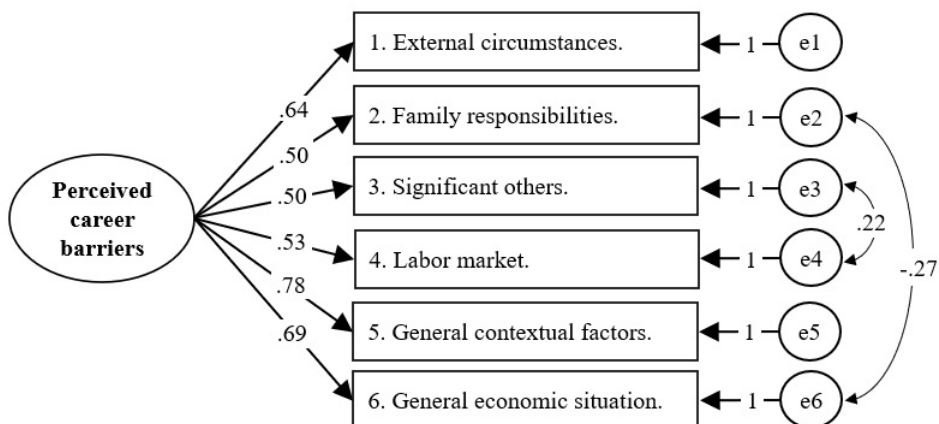
Statistical analyses were conducted using IBM SPSS Statistics Software (version 23.0) and SPSS AMOS. To examine the construct validity of the Perceived Career Barriers Scale (Hirschi & Freund, 2014), confirmatory factor analysis was conducted. To test the reliability of the scale, Cronbach’s alpha was calculated. Convergent validity of the Perceived Career Barriers Scale was tested by evaluating Pearson’s correlations of perceived career barriers with career self-efficacy and time perspective. A small percentage of data was missing (career barriers – .7%, career self-efficacy – .4%, time perspective – .4% of values). Missing values were analyzed, and expectation-maximization (EM) technique was applied to account for the missing data.

Results

Results of confirmatory factor analysis of the Lithuanian version of the Perceived Career Barriers Scale are presented in Figure 1.

Figure 1

Results of confirmatory factor analysis (standardized regression weights) of the Lithuanian version of the Perceived Career Barriers Scale



Initial results of confirmatory factor analysis did not confirm the appropriate structural validity of the scale. Therefore, based on modification indices, two correlations of errors for which there is a theoretical rationale were added. The correlations of errors were added among items representing a future aspect of career development: 3rd (planning) and 4th items (future career development). For the items 2 and 6, we hypothesize that variance, unexplained by the latent factor, may be related to possible discrepancies between proximal (family) and distal (general economic situation) environments and opposite forces affecting persons' situation, for example, family acting as a protective factor against challenging general economic situation. After slightly modifying the model, it had better fit and construct validity of the scale was confirmed: $\chi^2(7) = 14.87, p = .04$; $RMSEA = .06$; $CFI = .98$; $TLI = .97$.

The internal consistency of the scale measured by Cronbach's alpha was .77, which shows that the reliability of the scale is satisfactory.

Table 1 describes the variables used in the analyses: perceived career barriers, career self-efficacy, and time perspective.

Table 1
Descriptive statistics and intercorrelations of the variables

Variable	<i>M (SD)</i>	Range	1	2	3	4	5	6	7
1. Perceived career barriers	13.55 (5.05)	6–30	–						
2. Career self-efficacy	3.66 (.57)	1.18–5	-.35**	–					
3. Past Negative	3.08 (.85)	1–5	.37**	-.43**	–				
4. Past Positive	3.87 (.68)	1–5	-.02	.19**	.09	–			
5. Present Fatalistic	2.22 (.83)	1–5	.38**	-.48**	.45**	.01	–		
6. Future Positive	3.72 (.70)	1–5	-.13	.53**	-.27**	.23**	-.20**	–	
7. Future Negative	2.53 (.83)	1–5	.40**	-.58**	.64**	-.10*	.52**	-.41**	–

Note. N = 382.

* $p < .05$; ** $p < .001$.

Significant negative correlations were found among perceived career barriers and career self-efficacy ($r = -.35, p < .001$). Perceived career barriers were positively related to three time perspectives: Past Negative ($r = .37, p < .001$), Present Fatalistic ($r = .38, p < .001$), and Future Negative ($r = .40, p < .001$).

Discussion

The aim of the research was to test the validity of the Lithuanian version of the Perceived Career Barriers Scale. The scale was translated from the German language and the main psychometric properties were explored.

Construct validity of the scale was confirmed by the confirmatory factor analysis results. Appropriate values of goodness-of-fit indices were obtained after minor modifications of the model – two correlations of errors were added.

Results revealed that the scale is reliable – internal consistency of the scale was satisfactory. A higher value was not expected because of the length of the scale. The obtained Cronbach's alpha value was identical to its original version's Cronbach's alpha (Hirschi & Freund, 2014).

Convergent validity of the scale was confirmed by the moderate correlations (Cohen, 1988) with theoretically related constructs – career self-efficacy and time perspective. The relationship between career barriers and career self-efficacy was also reported in the study of the validation of the original scale (Hirschi & Freund, 2014) and other studies (Cardoso & Moreira, 2009; McWhirter et al., 2000). We could see this result as evidence of the convergent validity of the translated scale. The relationships between career barriers and Future Negative, Past Negative and Present Hedonistic time perspectives provides additional evidence of convergent validity. However, the correlation between Future Positive time perspective and career barriers was negative yet nonsignificant. Based on previous studies (Ferrari et al., 2010; Kairys et al., 2013; Taber, 2013), negative relationship was expected, as Positive Future time perspective is related to positive career development indicators. The nonsignificant correlation may be explained by exploring some studies (e.g., Mahajna, 2017) that provide insights into how some barriers may have positive links while others may have negative links with future time orientation (construct similar to Positive Future time perspective). Therefore, a combined indicator of career barriers may have insignificant links with Positive Future time perspective.

Considering the usefulness of brief measures, the Lithuanian version of the Perceived Career Barriers Scale may be used for further research. However, it is recommended to conduct a more comprehensive validity evaluation.

Limitations and directions for future research

Several limitations must be noted. First, convenience sampling was applied, and therefore, the results should be interpreted with care. The second limitation is related to the scale which was used to test the convergent validity of the Lithuanian version of the Perceived Career Barriers Scale (Hirschi & Freund, 2014). We used the Career Self-Efficacy Scale (Kossek et al., 1998), which was newly translated, and only basic psychometric characteristics have been tested. Third, test-retest reliability of the Lithuanian version of the Perceived Career Barriers Scale (Hirschi & Freund, 2014) was not evaluated in this research.

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