SHORT REPORT

Polish adaptation of the Inventory of the Dimensions of Emerging Adulthood (IDEA-PL)

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BACKGROUND

Emerging adulthood refers to a new phase in life that is related to the transition period from adolescence to adulthood. The concept spread around the world and has been examined in various cultural contexts. This article aims to introduce a Polish adaptation of the Inventory of the Dimensions of Emerging Adulthood (IDEA-PL) developed to assess attitudes toward emerging adulthood among young people.

PARTICIPANTS AND PROCEDURE

In total, 1,414 randomly assigned emerging adults aged between 18 and 29 took part in this study. Participants were asked to describe the extent to which they considered their current life as a time of identity exploration, experimentation/possibilities, negativity/instability, self-focused, feeling in-between, and other-focused. Responses were given on a Likert-type scale ranging from 1 (strongly disagree) to 4 (strongly agree).

The results were analyzed in two steps: via exploratory factor analysis (EFA) to check the underlying structure of the measure and via confirmatory factor analysis (CFA) to assess the model fit. The EFA results showed that the IDEA-PL items loaded onto the originally dedicated six factors; however, some achieved low loadings and/or cross-loadings. In the second step of the analysis, the problematic items were eliminated and the CFA results showed that a five-factor solution with 15 items achieved satisfactory parameters.

CONCLUSIONS

In this paper, we introduce a Polish adaptation of the Inventory of the Dimensions of Emerging Adulthood (IDEA-PL). These results add value to the existing literature and scholars and clinicians can use this questionnaire for research and practice purposes.

KEY WORDS

emerging adulthood; Inventory of the Dimensions of Emerging Adulthood; Polish young adults; CFA, EFA

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BACKGROUND

In developed societies, the age between 18 and 29 years is often a period of constant change when young people do not vet make long-term choices or decisions. Arnett (2000) proposed a concept of "emerging adulthood" as a new phase in life that is related to the transition period from adolescence to adulthood during which social moratorium and the process of identity formation occur. To operationalize this construct, Reifman et al. (2007) developed the Inventory of the Dimensions of Emerging Adulthood (IDEA). The original version of the IDEA consists of six scales: Identity exploration, Experimentation/ possibilities, Negativity/instability, Others-focused, Self-focused, and Feeling in-between. Identity exploration is related to perceiving current life as a time of discovering, defining oneself, becoming independent, searching for the meaning of life, and developing personal values. Experimentation/possibilities is linked to perceiving current life as full of possibilities, exploration, experimenting, making temporary choices, and trying new things. Negativity/instability is related to perceiving current life as full of confusion, limitations, stress, pressure, worry, and unpredictability. Self-focused is linked to perceiving current life as a time of personal freedom, independence, personal responsibility, and self-sufficiency. Feeling inbetween is related to perceiving oneself as not fully mature yet and not certain about whether or not one has reached adulthood. The questionnaire also includes a supplementary scale, Other-focused, which is linked to perceiving current life as a time of increased concentration on others. Although it is considered a non-conceptual subscale, it enables researchers to assess its relationship (usually a negative one) with the Self-focused scale (Reifman et al., 2007).

The concept of "emerging adulthood" has spread around the world and has been examined in various cultural contexts. The IDEA has been translated into several different languages worldwide and validated in various cultural contexts, e.g. The Netherlands (Hill et al., 2015), Greece (Leontopoulo et al., 2016), Bulgaria (Papazova, 2016), Romania (Negru, 2012), Brazil (Dutra-Thome & Koller, 2017), and recently Spain (Sánchez-Queija et al., 2020) and Belgium (Mattys et al., 2020).

Although extensive studies have been carried out in other countries, still little is known about the experiences of emerging adults from Central and Eastern European cultural contexts (Buhl & Lanz, 2007). Therefore, this study aimed to introduce a Polish adaptation of the Inventory of the Dimensions of Emerging Adulthood (IDEA-PL). Moreover, it is still unclear how many factors form the IDEA because previous studies (e.g. Lisha et al., 2014) failed to replicate the results obtained by Reifman et al. (2007); therefore alternative model solutions are needed.

PARTICIPANTS AND PROCEDURE

PARTICIPANTS

In total, 1,414 randomly assigned participants between the ages of 18 and 29 ($M_{\rm age}$ = 23, SD = 2.89), 63% females, took part in this study. To prepare the Polish adaptation, professional translations and back translations were prepared. The material was then consulted with the authors of the original English version (Reifman et al., 2007) and the final set of items was prepared.

The study was carried out according to ethical standards. All participants were debriefed and informed that the study was anonymous, voluntary, and no monetary compensation for taking part in this study was provided.

MEASURE

The Inventory of the Dimensions of Emerging Adulthood (IDEA; Reifman et al., 2007) includes 31 items that assess five emerging adulthood characteristics. Participants are asked to describe the extent to which they consider their current life is a time of: Identity exploration (7 items, e.g. "learning to think for yourself"), Experimentation/possibilities (5 items, e.g. "trying out new things"), Negativity/instability (7 items, e.g. "feeling stressed out"), Self-focused (6 items, e.g. "selfsufficiency"), Feeling in-between (3 items, e.g. "feeling adult in some ways but not others"). The IDEA also includes a supplementary scale called Other-focused (3 items, e.g. "commitments to others"). Responses are given on a Likert-type scale ranging from 1 (strongly disagree) to 4 (strongly agree).

DATA ANALYSES

First, we ran the confirmatory factor analysis (CFA) on the total sample to evaluate whether the original structure of the IDEA fits the Polish cultural context. In the next step, the data were randomly split into two parts in R statistical software (R Core Team, 2020) which is a common procedure in construct adaptation and validation (e.g. Kyriazos, 2018). Exploratory factor analysis (EFA) was carried out on the first part of the data to check the underlying structure of the IDEA-PL. Then the CFA models were run on the second part of the data to assess the model fit.

RESULTS

DESCRIPTIVE STATISTICS AND INTERCORRELATIONS

The preliminary results were carried out to test the means, standard deviations, intercorrelations, and

Table 1Means, standard deviations, partial correlations and reliability coefficients for all IDEA-PL scales

	IE	E/P	N/I	OF	SF	FiB
IE	(.86)					
E/P	.51**	(.79)				
N/I	.22**	.18**	(.82)			
OF	.19**	08**	03	(.70)		
SF	.42**	.49**	09**	.11**	(.75)	
FiB	.48**	.40**	.30**	09**	.12**	(.70)
М	3.16	3.08	2.59	2.67	3.01	2.77
SD	.53	.51	.55	.69	.44	.71

Note. **Correlation is significant at the .01 level (2-tailed). Reliability estimates (ω) are presented at diagonal. IE – Identity exploration; E/P – Experimentation/possibilities; N/I – Negativity/instability; OF – Other-focused; SF – Self-focused; FiB – Feeling in-between.

reliability of the IDEA-PL by calculating McDonald's (1978) omega coefficient (ω) for each scale. The parameters are shown in Table 1.

The results showed that Polish emerging adults obtained the highest scores in Identity exploration and Experimentation/possibilities and the lowest scores in Negativity/instability and Other-focused. Regarding intercorrelations, the results showed that Identity exploration correlated positively with all four subscales (most strongly with Experimentation/possibilities and with Feeling in-between). Experimentation/possibilities correlated positively with Self-focused, Feeling in-between, Negativity/instability, but negatively with Other-focused. Negativity/instability correlated positively with Feeling in-between, but negatively with Self-focused (Self-focused also correlated positively with Feeling in-between). Surprisingly, there was a positive correlation between Self-focused and Other-focused scales, similar to the Spanish sample (Sánchez-Queija et al., 2020) but unlike the US sample (Nelson et al., 2015). All subscales achieved satisfactory reliability estimates.

EXAMINING THE FACTORIAL STRUCTURE OF IDEA-PL

We used structural equation modeling to identify factors underlying the Polish adaptation of the IDEA. First, confirmatory factor analysis (CFA) was run on the total sample to evaluate whether the original structure of the IDEA fits the Polish cultural context. In the evaluation of the model fits, we applied standard criteria by Schreiber et al. (2006), i.e. CFI > .90. The CFA results showed that the original model of the IDEA did not fit well in the Polish sample, $\chi^2(419) = 3702.21$, p < .001; CFI = .724, RMSEA = .077, 90% CI [.074-.079]. Therefore, in the next step, the data were randomly split into two parts. First, we ran an exploratory fac-

tor analysis (EFA) on n = 704 to check the underlying structure of the IDEA-PL. The six factors included in the IDEA are conceptually related to emerging adulthood and were correlated; therefore oblimin rotation was used with the maximum likelihood (ML) estimation method. The EFA results are presented in Table 2.

The results showed that most items loaded on the intended factors. All items theoretically related to Identity exploration loaded on this factor and achieved loadings above .30, except for item 23 "separating from parents", which loaded more strongly on the Selffocused factor. In the Experimentation/possibilities factor, four out of five items achieved good loadings, except for item 16 "open choices". All items related to Negativity/instability and Other-focused loaded smoothly onto the theoretically assigned scales, but problems occurred with the last two scales. Four items out of six from the Self-focused scale cross-loaded onto other scales: item 5 "personal freedom" loaded onto Experimentation/possibilities, item 7 "responsibility for yourself" loaded onto Other-focused, item 10 "optimism" loaded negatively onto Negativity/ instability and item 22 "focusing on yourself" loaded onto Identity/exploration. All items from the Feeling in-between scale cross-loaded onto other scales: item 29 "feeling adult in some ways but not others" and item 30 "gradually becoming an adult" onto Identity exploration and item 31 "being unsure whether you have reached full adulthood" on Negativity/instability. Similar problems were encountered in a study carried out by Dutra-Thomé and Koller (2017) on a Brazilian sample and Atak and Çok (2008) on a Turkish sample.

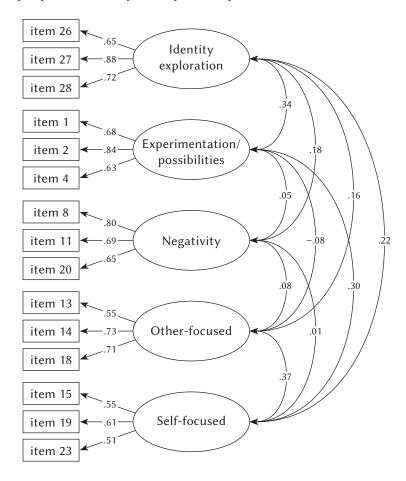
MODEL FIT TESTING

Based on the examination of individual item loadings, in the second step, several CFA models were tested on n = 710. Following the recommendation

Table 2 Rotated factor loading obtained via exploratory factor analyses (n = 704)

Item number and content	Identity exploration	•	Negativity/ instability			Feeling in-betweer
27. deciding on your own beliefs and values?	.76					
28. learning to think for yourself?	.64					
26. seeking a sense of meaning?	.59					
24. defining yourself?	.55					
25. planning for the future?	.49					
12. finding out who you are?	.31					
23. separating from parents?	.29				.39	
1. many possibilities?		.76				
2. exploration?		.65				
4. experimentation?		.44				
21. trying out new things?		.40				
16. open choices?		.12				
8. feeling stressed out?			.70			
11. high pressure?			.66			
20. many worries?			.64			
3. confusion?			.61			
9. instability?			.53			
6. feeling restricted?			.43			
17. unpredictability?			.31			
18. commitments to others?				.70		
14. responsibility for others?				.66		
13. settling down?				.49		
5. personal freedom?		.36			.32	
7. responsibility for yourself?				.27	.22	
10. optimism?			37		.02	
15. independence?					.60	
19. self-sufficiency?					.62	
22. focusing on yourself?	.23				.23	
29. feeling adult in some ways but not others?	.44					.43
30. gradually becoming an adult?	.42					.34
31. being unsure whether you have reached full adulthood?			.23			.32

Figure 1 A CFA model of the five-factor solution of the brief version of the IDEA-PL



for CFA model testing (e.g. Howitt & Cramer, 2011) items with the lowest loadings or cross-loadings onto other factors were excluded from the analyses. As a result of the selection process, the whole Feeling-in between scale was eliminated and item 23 "separating from parents" was moved to the Self-focused factor (similar to Lisha et al., 2014). For each factor, the three most representative items with the highest factor loadings were retained. Therefore, a 15-item solution was tested which included five factors: Identity exploration, Experimentation/possibilities, Negativity, Other-focused, and Self-focused. The CFA results showed that the revised model of the IDEA received good parameters, $\chi^2(80) = 286.44$, p < .001; CFI = .918, RMSEA = .062, 90% CI [.054-.069], with all factor loadings above .50, as presented in Figure 1.

DISCUSSION

In this paper, we introduced a Polish adaptation of the Inventory of the Dimensions of Emerging Adulthood (IDEA-PL) that was originally developed in English by Reifman et al. (2007). The results showed that

Polish emerging adults obtained the highest scores in Identity exploration and Experimentation/possibilities and the lowest scores in Negativity/instability and Other-focused. Identity exploration was positively related to Experimentation/possibilities and Feeling in-between, which means that young people who still explore their identity, and search for possible alternatives, may also experience disorganization relating to their current place in society. Self-focused and Other-focused are supposed to be unrelated from the theoretical point of view, which is also supported in other studies, e.g. research based on the US sample by Nelson et al. (2015). However, our study showed that these two scales are positively linked to each other. Similar results were obtained in a Spanish sample (Sánchez-Queija et al., 2020). A possible explanation for this result could be cultural differences. Although Poland has become more of an individualistic society in the recent few decades, it is still perceived as a traditional society with a strong value placed on family (Zagórska et al., 2012). Emerging adults in Poland, in line with emerging adults in other Western countries, are strongly focused on their personal development and independence (Zagórska & Lubieniecka, 2018; Michałek, 2016), but they are also involved in relationships and start taking responsibility for other people (such as taking care of their parents, volunteer work, etc.). The latest Eurostat (2020) report showed that young people are more willing to combine work and education, which allows them to attain more financial independence (the EU-27 employment rate in 2019 for young people aged 25-29 years was 74.6%). Research shows that experiencing independence does not diminish the capacity to commit to other people because taking responsibility for others is perceived as an essential part of independence (e.g. Mattys et al., 2020 study on Flemish emerging adults). Also, commitment-making is positively related to mental health (e.g. Bogaerts et al., 2021 study on Belgian emerging adults). Oleszkowicz and Misztela (2015) found that a high percentage of Polish young people settle down into the roles and responsibilities of adult life and demonstrate a sense of adulthood.

The CFA results showed that the original model (i.e. a six-factor solution) did not fit well in the Polish sample. Therefore, we applied exploratory factor analysis to check the underlying structure, which showed that nine items achieved weak loadings and/ or cross-loaded on other factors. In the next step of the analysis, we carefully selected items that had the highest factor loadings and did not cross-load on other factors and included them in further model testing. A five-factor solution, with 15 items, was tested, which included: Identity exploration, Experimentation/possibilities, Negativity/instability, Otherfocused, and Self-focused. Similar solutions were proposed in research with US students (Lisha et al., 2014), and Turkish samples (Atak & Çok, 2008). Based on the results, it can be concluded that the brief version of the IDEA-PL (please see the supplementary material) achieved satisfactory parameters, but further studies are needed to support the model.

LIMITATIONS AND FUTURE DIRECTIONS

Several limitations of this study should be mentioned. First, the results are based on self-reported data derived from a relatively homogeneous group (Polish emerging adults living in urban areas); therefore it would be worth including other methods and extending the study to other cultural contexts using the newly formed 15-item version of the IDEA-PL. Second, the COVID-19 pandemic had a significant impact on young people's life following various restrictions (e.g. lockdown), which led to a reduced social life, returning home to live with parents again, or worse mental health (Prattley et al., 2022). As emerging adulthood is a particularly sensitive period from the developmental perspective, it would be interesting to replicate the study in the post-pandemic times.

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Supplementary material is available on journal's website.

DISCLOSURE

The authors declare no conflict of interest.

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