Psychiatr. Pol. ONLINE FIRST Nr 254: 1–13
Published ahead of print 18 October 2021
www.psychiatriapolska.pl
ISSN 0033-2674 (PRINT), ISSN 2391-5854 (ONLINE)
DOI: https://doi.org/10.12740/PP/OnlineFirst/140140

Psychometric assessment of the Polish translation of the Transgender Positive Identity Measure (T-PIM)

Karolina Koziara[1], Magdalena Ewa Mijas[2], Mateusz Piotr Pliczko[3], Jowita Wycisk[4], Bartosz Grabski[3]

[1] Institute of Psychology, Department of Philosophy, Jagiellonian University
[2] Institute of Public Health, Faculty of Health Sciences, Jagiellonian University Medical College
[3] Sexology Lab, Department of Psychiatry, Jagiellonian University Medical College
[4] Faculty of Psychology and Cognitive Science, Adam Mickiewicz University

Summary

Aim. Research conducted in transgender and gender diverse individuals focuses mainly on the challenges and health disparities affecting this population. One reason for this situation is the lack of questionnaires capturing positive aspects and experiences related to being a transgender person. The Transgender Positive Identity Measure (T–PIM) is one of a very few measures designed to explore such experiences. The aim of the study was to investigate the structure, reliability, and validity of the Polish translation of the T–PIM questionnaire.

Method. A group of 89 transgender and gender diverse participants completed an online survey including the T–PIM questionnaire, Resilience Measurement Scale (SPP-25) and the Center for Epidemiologic Studies Depression Scale – Revised (CESD-R). Hierarchical item clustering method (ICLUST), Horn's parallel analysis and Velicer's minimum average partial test (MAP) were employed to investigate the structure of the questionnaire.

Results. The analyses showed that the Polish translation of the T–PIM questionnaire was characterized by a 5-factor structure consistent with the original publication (Authenticity, Intimacy, Community, Social Justice, Insights). Cronbach's alpha and Guttman's lambda-6 reliability coefficients reached satisfactory levels for all five factors and for the whole questionnaire.

Conclusions. The Polish translation of the T–PIM questionnaire is characterized by satisfying psychometric properties and can be used in studies on transgender and gender diverse communities.

Key words: transgender persons, resilience, health

Introduction

Recent changes introduced to the DSM-5 [1] and the ICD-11 [2], concerning the terminology, content, and placement of gender dysphoria diagnoses constitute an important step towards not only the depsychiatrization of the experiences of transgender persons, but also shifting the focus of research to include a more comprehensive picture of factors affecting the well-being of this population. There is no doubt that members of the transgender community are disproportionately burdened with various adversities, such as social prejudice, internalized transphobia, and healthcare barriers during the transition process [3–5], which take a toll on their health. However, a few studies also indicate that transgender and gender diverse persons are characterized by unique sources of resilience, which help them survive and even thrive, despite those challenges [6]. Advancing our understanding of resilience sources and positive self-definition in transgender individuals requires further studies and research tools tailored to capture the unique experiences of this population.

One of such tools is the Transgender Positive Identity Measure (T-PIM) by Riggle and Mohr [7]. This questionnaire consists of 24 items describing positive experiences associated with being a transgender person, which are assessed on a 7-point Likert-type scale, ranging from *1—disagree strongly* to *7—agree strongly*. The T-PIM questionnaire has a 5-factor structure.

The first factor – Authenticity – captures self-acceptance associated with being a transgender person [7]. Achieving self-acceptance and positive self-identity constitutes in gender and sexually diverse persons a critical developmental milestone [8–10], which is related to strengthened individual resilience [11]. The decreased level of self-acceptance in minority populations, on the other hand, is associated with increased minority stress and greater mental health disparities [12].

Another T-PIM factor — Intimacy — concerns a perceived positive change in intimate partner relationships, and a more reflective approach to the gender norms which shape these relationships [13]. Despite the numerous challenges, not only associated with gender dysphoria or exposure to stigma, but also with normative gender and sexuality scripts [14] which all may hinder intimate relationships, transgender persons manage to find creative ways to form satisfying relationships [7]. As it is with other minority groups, the intimate relationships of transgender and gender diverse persons also constitute a significant protective factor against experienced stigmatization [15].

The third factor — Community — describes the sense of belonging to a larger group of sexually and gender diverse persons and receiving their support [7]. Social support from the LGBTQ community and, in particular, support from the gender-diverse community is a crucial factor protecting against the negative effects of minority stress [16].

Another factor of the T-PIM questionnaire — Social Justice — refers to the empathy associated with recognizing various types of oppression and involvement with social justice activism [7]. Activism can take various forms including social justice

work, educating others, or living openly as a transgender person to support and inspire other members of the trans community [6]. Being involved in activism is related to fewer health problems in sexual minority persons and as such it constitutes a health-enhancing response to prejudice and discrimination [17].

The last factor — Insights — refers to self-awareness, self-knowledge and in-depth personal development, inspired by being a transgender person [7]. Models of minority gender and sexual identity development associate these feelings with the final stages of the identity formation process, which are usually described in terms of identity synthesis and/or integration [9]. Some transgender persons also claim that their gender identity contributed to their spiritual growth and describe the process of transition in terms of spiritual experience [6].

According to the authors of the T-PIM questionnaire, the distinguished five factors summarize the most important positive aspects which are associated with transgender identity [7]. This measure can be useful not only in studies on mental and physical health determinants in transgender populations but also in clinical practice, since the dominant narrative of the past decades, which was centered around distress and dysphoria, has been now replaced with a more balanced approach [18, 19].

Our study aimed at exploring the structure and examining the reliability and validity of the Polish translation of the Transgender Positive Identity Measure questionnaire [6].

Method

Procedure

The adaptation of the Transgender Positive Identity Measure was performed as a part of a greater research project focused on health determinants in Polish LGBTQ persons. The study was conducted by means of an online survey using the Qualtrics® research platform. The invitations to participate were addressed to both cisgender[1] and transgender members of the Polish LGBTQ community over 18 years of age and they were distributed *via* newsletters/mailing lists and social media. For the purpose of this particular analysis, we used only the data obtained from persons who indicated a gender identity different from assigned gender and completed the T-PIM questionnaire. The study was approved by the Research Ethics Committee of the Institute of Psychology at the Jagiellonian University.

First, the original version of the T-PIM questionnaire was translated by two Polish citizens fluent in English (cisgender man and cisgender woman). Since their translations were consistent, a Polish philologist was asked to provide a final proofread. Next, the Polish version of the T-PIM was consulted with transgender and gender diverse

[1] Cisgender person – a person who declares congruence between their gender assigned at birth and their gender identity.

persons (varied by age and education level) to check the clarity and comprehensibility of the questionnaire items. Their suggestions were included in the final version of the questionnaire.

Participants

The sample consisted of 89 transgender and gender diverse persons, including 43 participants (48%) who indicated non-binary gender identity (that is, from available options they chose "non-binary" label) and 39 participants (44%) who described their gender using binary categories (i.e., identified as transgender men or women). An additional 7 persons (8%) described their gender with other labels which were difficult to categorize as either binary (transgender men or transgender women) or non-binary (e.g., 'transgender person' or 'transsexual person'). These participants were included in the analyses performed for the whole sample, but not in comparisons between the binary and non-binary group. Among transgender men and women (binary group), 14 persons (36%) were assigned male at birth, and 25 persons (64%) were assigned female at birth. Among the non-binary individuals, 8 (19%) were assigned male, and 34 (81%) were assigned female at birth. One study participant decided not to answer the question about their assigned gender.

The participants' average age was 24.72 ($SD = 7.46$, *median* = 24.00). The transgender men and women were slightly older ($M = 25.79$, $SD = 9.26$) than the non-binary ones ($M = 23.21$, $SD = 4.52$). This difference, however, was not statistically significant, $t_{Welch}(58.89) = -1.58$, $p = 0.120$, CI 95% [-5.86, 0.69]. More than half of the sample had at least some university experience ($n = 53$, 60%). Of all participants, 64 persons (72%) described their monthly income as sufficient to cover their basic needs, 11 persons (12%) assessed their income as insufficient, and 14 participants (16%) refused to answer this question. Nearly half of our sample ($n = 44$, 49%) resided in towns with over 500,000 inhabitants.

Measures

The demographic questionnaire included a question on gender assigned at birth (participants could choose not to answer this question), a multiple-choice question concerning affirmed gender (with available options such as: *a woman*, *a transwoman*, *a woman with transgender past*, *a man*, *a transman*, *a man with transgender past*, *a transgender person*, *a transsexual person*, *a queer person*, *a non-binary person*, *an intersex person*, *other – please specify*), as well as questions regarding age, financial standing, education, and place of residence.

In addition to the Transgender Positive Identity Questionnaire (T-PIM), our study also included two other questionnaires. To measure the level of individual resilience, the Resilience Measurement Scale (*Skala Pomiaru Prężności* SPP-25) was used [20].

The scale consists of 25 items describing coping strategies and attitudes indicative of resilience, to which participants respond using a five-point Likert-type scale (ranging from *0—definitely not* to *4—definitely yes*) in terms of how accurately the items describe the participants. A higher score indicates greater individual resilience.

The Center for Epidemiologic Studies Depression Scale – Revised (CESD-R [21], Polish translation by Koziara [22]) was used to assess depressive symptoms in the study population. The CESD-R consists of 20 items describing the symptoms of depression rated on a 5-point Likert-type scale (from *0—not at all or less than one day* to *4—nearly every day for 2 weeks*).

Statistical analyses

Statistical analyses were conducted by means of *R Studio* [23]. We also used the *psych* package [24] and the *car* package [25]. First, we conducted Horn's parallel analysis and Velicer's minimum average partial (MAP) test to explore the number of suggested factors of the questionnaire. Velicer's MAP test indicates the number of factors based on the shared variance in the correlation matrix – the lowest average squared partial correlation determines the number of components [26]. The hierarchical clustering analysis (ICLUST) with five fixed factors was used to investigate the factor loadings of the questionnaire items. Additionally, we investigated the bifactor model which included all 5 factors as well as a global factor comprising of all questionnaire items [27, 28]. Cronbach's *alpha* and Guttman's *lambda*-6 were used to assess the reliability of the questionnaire. In addition, the analysis of covariance (ancova) was conducted with age as a covariant, to compare the T-PIM results in transgender men and women and non-binary persons.

Results

The mean value of the T-PIM questionnaire for the sample was 5.07 points ($SD = 0.96$; min = 2.25; max = 7.00). The data were normally distributed ($W = 0.98$, $p = 0.285$; skewness = – 0.45). The descriptive statistics for all T-PIM factors both for the whole sample and across the two distinguished groups are displayed in Table 1. We observed no statistically significant differences between the non-binary persons and transgender men and women in the case of all T-PIM factors, as well as the depressiveness. Transgender men and women were, however, characterized by significantly increased resilience as compared to non-binary participants (Table 1).

Table 1. **Description and comparison of psychological variables between binary (transgender men and women) and non-binary persons from the study sample**

	Total		Non-binary persons		Transgender men and women		ANCOVA* (DFs)	p
	M (SD)	Min/Max	M (SD)	Min/Max	M (SD)	Min/Max		
T-PIM sum	5.07 (0.96)	2.25/7.00	5.16 (0.91)	2.25/6.83	5.06 (0.96)	2.67/7.00	0.91 (1, 79)	0.342
Authenticity	5.52 (1.40)	2.00/7.00	5.74 (1.09)	2.60/7.00	5.50 (1.48)	2.00/7.00	1.74 (1, 79)	0.191
Intimacy	4.52 (1.59)	1.00/7.00	4.69 (1.76)	1.00/7.00	4.41 (1.37)	1.00/7.00	0.77 (1, 79)	0.381
Community	4.78 (1.33)	1.00/7.00	4.70 (1.36)	1.00/7.00	4.96 (1.26)	2.60/7.00	0.38 (1,79)	0.542
Social Justice	6.11 (1.20)	1.00/7.00	6.27 (1.10)	1.00/7.00	5.91 (1.37)	1.00/7.00	1.81 (1, 79)	0.183
Insights	4.27 (1.64)	1.00/7.00	4.21 (1.59)	1.00/7.00	4.37 (1.78)	1.50/7.00	0.03 (1, 79)	0.868
SPP-25	3.29 (0.81)	1.16/4.80	3.07 (0.88)	1.16/4.60	3.54 (0.71)	2.24/4.80	4.90 (1, 74)	0.030
CESD-R	54.69 (20.05)	22/94	54.73 (19.31)	22/94	53.97 (21.21)	22/88	0.26 (1, 66)	0.609
* All ANCOVA models were adjusted for age.								

The Horn's parallel analysis and Velicer's minimum average partial test indicated a 5-factor structure as the most optimal for the T-PIM questionnaire. The hierarchical cluster analysis (ICLUST) [29] with the cluster's number defined prior to the analysis indicated satisfying factor loadings (Table 2). Both Cronbach's *alpha* ($\alpha = 0.90$) and Guttman's *lambda*-6 ($\lambda 6 = 0.96$) reached satisfying levels.

Table 2. **Cluster structure matrix (only loadings of 0.40 and more are included)**

T-PIM item	Factor loadings				
	Authenticity	Intimacy	Community	Social Justice	Insights
1. I embrace my LGBT identity	0.88				
2. I am comfortable with my LGBT identity	0.92				
3. I have a sense of inner peace about my LGBT identity	0.90				
4. My LGBT identity has given me more confidence	0.69				0.44
5. I am honest with myself about my LGBT identity	0.61				
6. My LGBT identity allows me to feel free to explore different experiences of physical intimacy with a partner		0.84			
7. My LGBT identity allows me to be closer to my intimate partner		0.89			

table continued on the next page

8. My LGBT identity helps me to communicate better with my intimate partner		0.90	0.42		
9. My LGBT identity allows me to understand my sexual partner better		0.84			
10. My LGBT identity allows me to explore new ways of having romantic relationships instead of following typical "heterosexual" patterns		0.77			0.49
11. I feel included in the LGBT community			0.78	0.43	0.40
12. I feel supported by the LGBT community			0.80		
13. I feel a connection to the LGBT community			0.83	0.43	0.43
14. I find positive networking opportunities in the LGBT community			0.80		
15. I feel visible in the LGBT community			0.62		0.43
16. I am more sensitive to prejudice and discrimination against others because of my LGBT identity				0.82	
17. I am more sensitive to the experiences of other minority group members because of my experiences as an LGBT person				0.91	
18. I think more critically about the suffering in the world because of my LGBT identity				0.85	
19. As an LGBT person, I feel it is important to work towards equality for all people			0.46	0.80	
20. My LGBT identity prompts me to speak out against prejudice and discrimination				0.85	
21. My LGBT identity inspires me to strive towards reaching my full potential in life			0.45		0.89
22. My LGBT identity helps me develop skills that enhance my life		0.42	0.47		0.85
23. My LGBT identity provides me with many opportunities for personal growth		0.44	0.46		0.90
24. I am free to express my full range of emotions because of my LGBT identity			0.43		0.85
Cluster fit = 0.93, Pattern fit = 0.99, RMSR = 0.04					

Table 3 shows correlation coefficients between T-PIM mean value and its factors' values. The smallest correlation was observed for Social Justice and Authenticity, Social Justice and Insights, as well as Intimacy and Authenticity factors. Table 4 presents correlations between T-PIM factors, level of depression, and individual re-

silience. We observed no statistically significant correlation between T-PIM factors and depressiveness. Of all T-PIM factors only Insights significantly correlated with individual resilience.

The bifactor analysis ($X2(228) = 452.45$, $p < 0.001$; AIC = 6781.40; CFI = 0.869; TLI = 0.842; RMSEA [90% CI] = 0.11 [0.10, 0.12]) confirmed the factorial and global solution – all of the questionnaire items assigned to 5 factors reached the satisfying standardized measures equal or higher than 0.30 ($p < 0.001$). In the case of the global factor, all but two items exceeded the 0.30 threshold value and were significantly correlated ($p < 0.001$). Items "I am honest with myself about my LGBT identity" and "My LGBT identity prompts me to speak out against prejudice and discrimination" did not reach the minimum value of 0.30 (0.166 ($p = 0.123$) and 0.282 ($p = 0.033$), respectively).

Table 3. **Inter-correlation coefficients (Kendall[a]) of T-PIM mean and T-PIM factors with Cronbach's *alpha* standardized values of each subscale**

	T-PIM mean ($\alpha = 0.91$)	Authenticity ($\alpha = 0.89$)	Intimacy ($\alpha = 0.92$)	Community ($\alpha = 0.86$)	Social Justice ($\alpha = 0.92$)	Insights ($\alpha = 0.92$)
T-PIM mean	-					
Authenticity	0.46***	-				
Intimacy	0.53***	0.20	-			
Community	0.54***	0.21*	0.27**	-		
Social Justice	0.32**	0.15	0.06	0.21*	-	
Insights	0.60***	0.26*	0.32**	0.37***	0.20	-
*p < 0.05; **p < 0.01; ***p < 0.001 [a]Kendall's Tau was used due to non-normal distributions						

Table 4. **Kendall[a] correlation coefficients of T-PIM subscales with resilience (SPP-25) and depressiveness (CESD-R) in study sample**

Correlation values [95% confidence intervals] / p value		
	SPP-25	CESD-R
T-PIM mean	0.20 [-0.2, 0.40] / 0.069	-0.19 [-0.40, 0.04] / 0.112
Authenticity	0.18 [-0.03, 0.38] / 0.097	-0.22 [-0.42, 0.01] / 0.060
Intimacy	0.08 [-0.14, 0.29] / 0.482	-0.14 [-0.36, 0.09] / 0.218
Community	0.12 [-0.09, 0.33] / 0.266	-0.07 [-0.30, 0.16] / 0.527
Social Justice	-0.09 [-0.29, 0.13] / 0.443	0.13 [-0.10, 0.35] / 0.253
Insights	0.28 [0.06, 0.46] / 0.011	-0.22 [-0.42, 0.01] / 0.064
[a]Kendall's Tau was used due to non-normal distributions		

Discussion

The aim of this analysis was to explore the structure, as well as to examine the reliability and the validity of the Polish translation of the Transgender Positive Identity Measure [7] — a scale designed to capture perceived positive aspects associated with transgender identity. Conducted analyses yielded the structure of the Polish translation of the T-PIM questionnaire identical to its original version [7]. The structure of the original tool was also reconstructed in terms of how questionnaire items were assigned to each of the distinguished five factors. Reliability measures – Cronbach's *alpha* and Guttman's *lambda*-6 – also met the satisfying criteria for both each of the five factors, and the whole questionnaire.

The lowest factor loadings were observed in the case of the Community factor— particularly items: 11 ("I feel included in the LGBT community"*)*, 13 ("I feel a connection to the LGBT community"), and 15 ("I feel visible in the LGBT community"). These items were also associated with more than one T-PIM subscale; however, the loadings for the Community factor were the highest. Perhaps this pattern reflects the participants' reduced level of identification with the LGBTQ community, which may be, for instance, related to exposure of rejection and prejudice within the community [30, 31]. It is also possible that at least some participants in our sample do not consider themselves as members of the LGBTQ community, which may be particularly true for non-binary persons [32]. The Polish LGBTQ community also has a relatively short history and is still developing. The reduced consistency of the Community factor may therefore reflect the low familiarity of our study participants with the sole idea of the LGBTQ community [33, 34]. This possibility offers an interesting reference point for future, preferably qualitative, studies.

Among all T-PIM factors, Community and Insights factors were also characterized by the strongest association. Insights was also the only T-PIM factor significantly and positively correlated with individual resilience. Contrary to previous studies, we did not observe any significant association between resilience and Community factor [18]. However, it may be attributable to the described issues which make it difficult for transgender and non-binary persons to identify with the Polish LGBTQ community.

Although the correlation coefficients between mean T-PIM values and both individual resilience and depression did not reach the level of statistical significance, the direction of these relationships supports the theoretical validity of the questionnaire. A negative association between depressiveness and Authenticity, the factor describing self-acceptance and coming to terms with one's gender identity, was marginally statistically significant. This is consistent with previous studies in transgender populations demonstrating the association between decreased self-esteem and depressiveness [35].

Although we observed that non-binary individuals are characterized by significantly lower resilience as compared to transgender men and women, no corresponding differ-

ences concerning the T-PIM questionnaire and depressiveness were observed between distinguished groups of participants. Previous studies comparing binary and non-binary individuals concerning health and health-related constructs indicated both increased [36] and decreased levels of mental health [37] in the latter group. It is possible, however, that reduced resilience in non-binary individuals may result from additional pressures associated with living in society, which is predominantly binary oriented [38]. Reduced resilience also suggests that non-binary individuals may constitute a vulnerable population. This issue requires more attention from mental health professionals, particularly in societies that are less accepting towards gender and sexual diversities. Social awareness of the situation of transgender persons in Poland still remains limited. In the study conducted by the Center for Evaluation and Analysis of Public Policies, only 3% of interviewees declared they have ever encountered a transgender person [39]. Studies on the situation of transgender and non-binary persons in Poland also indicate that the transgender population is the most exposed to violence and abuse, and most burdened with mental health inequalities, including suicidal ideations, compared to other LGBTQIA individuals [34].

Despite some limitations, including convenience sampling, cross-sectional design, and small sample size which all limit the generalizability of the results, this study adds to the literature on the health of transgender and gender diverse persons. An important strength of this study is the development of the Polish version of a unique questionnaire and obtaining the data from a hard-to-reach and relatively rarely studied population. Additionally, the positive aspects related to transgender identity have not been previously investigated in Polish gender diverse samples.

Conclusions

The Polish version of the Transgender Positive Identity Measure is characterized by satisfying psychometric properties and can be used in the Polish transgender persons' community, among both transgender men and women, and non-binary individuals. The analysis yielded a 5-factor structure of the scale consistent with the original questionnaire. The results observed in the sample of transgender persons living in Poland were consistent with the original publication [7]. In-depth psychometric evaluation of the questionnaire requires, however, further examination across various sociocultural contexts, and age groups.

References

1. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders. Fifth Edition.* Arlington, VA: American Psychiatric Association; 2013.
2. World Health Organization. *International statistical classification of diseases and related health problems. 11th Revision.* 2019.
3. Huffaker L, Kwon P. *A comprehensive approach to sexual and transgender prejudice.* J. Gay Lesbian Soc. Serv. 2016; 28(3): 195–213.
4. Smith ER, Perrin PB, Sutter ME. *Factor analysis of the heterosexist harassment, rejection, and discrimination scale in lesbian, gay, bisexual, transgender, and queer people of colour.* Int. J. Psychol. 2020; 55(3): 405–412.
5. Tebbe EN, Moradi B. *Anti-transgender prejudice: A structural equation model of associated constructs.* J. Couns. Psychol. 2012; 59(2): 251–261.
6. Riggle EDB, Rostosky SS, McCants LE, Pascale-Hague D. *The positive aspects of a transgender self-identification.* Psychol. Sex. 2011; 2(2): 147–158.
7. Riggle EDB, Mohr JJ. *A proposed multi factor measure of positive identity for transgender identified individuals.* Psychol. Sex Orientat. Gend. Divers. 2015; 2(1): 78–85.
8. D'Augielli A. *Lesbian, gay, and bisexual development during adolescence and young adulthood.* In: Cabaj RP, Stein TS, editors. *Textbook of homosexuality and mental health*. Washington, D.C.: American Psychiatric Association; 1996. p. 267–88.
9. Lev A. *Transgender emergence. Therapeutic guidelines for working with gender-variant people and their families.* New York, NY: Haworth Clinical Practice Press; 2004.
10. Mijas M, Iniewicz G, Grabski B. *Stage models of homosexual identity formation: implications for therapeutic practice.* Psychiatr. Pol. 2012; 46(5): 815–828.
11. Colpitts E, Gahagan J. *The utility of resilience as a conceptual framework for understanding and measuring LGBTQ health.* Int. J. Equity Health 2016; 15(1): 60.
12. Camp J, Vitoratou S, Rimes KA. *LGBQ+ self-acceptance and its relationship with minority stressors and mental health: a systematic literature review.* Arch. Sex. Behav. 2020; 49(7): 2353–2373.
13. Riggs DW, von Doussa H, Power J. *The family and romantic relationships of trans and gender diverse Australians: an exploratory survey.* Sex. Relatsh. Ther. 2015; 30(2): 243–255.
14. Iantaffi A, Bockting WO. *Views from both sides of the bridge? Gender, sexual legitimacy and transgender people's experiences of relationships.* Cult. Health Sex. 2011; 13(3): 355–370.
15. Fuller KA, Riggs DW. *Intimate relationship strengths and challenges amongst a sample of transgender people living in the United States.* Sex. Relatsh. Ther. 2019; 1–14.
16. Valentine SE, Shipherd JC. *A systematic review of social stress and mental health among transgender and gender non-conforming people in the United States.* Clin. Psychol. Rev. 2018; 66: 24–38.
17. Frost DM, Fine M, Torre ME, Cabana A. *Minority stress, activism, and health in the context of economic precarity: Results from a National Participatory Action Survey of lesbian, gay, bisexual, transgender, queer, and gender non-conforming youth.* Am. J. Community Psychol. 2019; 63(3–4): 511–526.
18. Ashley F. *Gatekeeping hormone replacement therapy for transgender patients is dehumanising.* J. Med. Ethics. 2019; 45(7): 480–482.

19. Schulz SL. *The Informed Consent Model of Transgender Care: An Alternative to the Diagnosis of Gender Dysphoria.* J. Humanist. Psychol. 2018; 58(1): 72–92.
20. Ogińska-Bulik N, Juczyński Z. *Skala Pomiaru Prężności – SPP–25.* Now. Psychol. 2008; 3: 39–56.
21. Eaton W, Smith C, Ybarra M, Muntaner C, Tien A. *Center for Epidemiologic Studies Depression Scale: Review and Revision (CESD and CESD–R).* In: Maruish ME, editor. *The use of psychological testing for treatment planning and outcomes assessment: Instruments for adults.* 3rd ed. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.; 2004. p. 363–377.
22. Koziara K. *Assessment of depressive symptoms in population. Psychometric evaluation of Polish version of CESD–R.* Psychiatr. Pol. 2016; 50(6): 1109–1117.
23. R Studio Team. *R Studio: Integrated Development for R.* R Studio, Boston: PBC; 2020.
24. Revelle W. *psych: Procedures for Psychological, Psychometric, and Personality Research.* Software.
25. Fox J, Weisberg S. *An R Companion to Applied Regression.* Thousand Oaks, California: Sage; 2019.
26. Velicer WF. *Determining the number of components from the matrix of partial correlations.* Psychometrika 1976; 41(3): 321–327.
27. Chen FF, West S, Sousa K. *A comparison of Bifactor and Second-Order Models of Quality of Life.* Multivar. Behav. Res. 2006; 41(2): 189–225.
28. Chen F, Zhang Z. *Bifactor Models in Psychometric Test Development.* In: Irwing P, Booth T, Hughes D, editors. *The Wiley Handbook of Psychometric Testing: A Multidisciplinary Reference on Survey, Scale and Test Development.* Hoboken, NJ: John Wiley & Sons Ltd.; 2018.
29. Revelle W. *Hierarchical cluster analysis and the internal structure of tests.* Multivar. Behav. Res. 1979; 14(1): 57–74.
30. Wang-Jones T, Hauson AO, Ferdman BM, Hattrup K, Lowman RL. *Comparing implicit and explicit attitudes of gay, straight, and non-monosexual groups toward transmen and transwomen.* Int. J. Transgenderism 2018; 19(1): 95–106.
31. Worthen MGF. *Hetero-cis–normativity and the gendering of transphobia.* Int. J. Transgenderism 2016; 17(1): 31–57.
32. Murjan S. *Psychiatry.* In: Richards C, Bouman WP, Barker M-J, editors. *Genderqueer and non-binary genders.* London: Palgrave Macmillan; 2017. p. 125–40.
33. Makuchowska M, Pawlęga M. *Sytuacja społeczna osób LGBT. Raport za lata 2010 i 2011.* Warsaw: Campaign Against Homophobia; 2012.
34. Świder M, Winiewski M. *Sytuacja społeczna osób LGBTA w Polsce. Raport za lata 2015–2016.* Warsaw: Campaign Against Homophobia; 2017.
35. Witcomb GL, Bouman WP, Claes L, Brewin N, Crawford JR, Arcelus J. *Levels of depression in transgender people and its predictors: Results of a large matched control study with transgender people accessing clinical services.* J. Affect. Disord. 2018; 235: 308–315.
36. Rimes K, Goodship N, Ussher G, Baker D, West E. *Non-binary and binary transgender youth: Comparison of mental health, self-harm, suicidality, substance use and victimization experiences.* Int. J. Transgenderism 2019; 20: 230–240.
37. Thorne N, Witcomb G, Nieder T, Nixon E, Yip A, Arcelus J. *A comparison of mental health symptomatology and levels of social support in young treatment seeking transgender individuals who identify as binary and non-binary.* Int. J. Transgenderism 2019; 20: 241–250.

38. Fiani C, Han H. *Navigating identity: Experiences of binary and non-binary transgender and gender non-conforming (TGNC) adults.* Int. J. Transgenderism 2019; 20: 181–194.

39. Antosz P. *Równe traktowanie standardem dobrego rządzenia. Raport z badań sondażowych.* Cracow: Centrum Ewaluacji i Analiz Polityk Publicznych; 2013.

Acknowledgements

We are grateful to all participants who devoted their time to take part in this study. We also want to thank the Trans-Fuzja Foundation, Signs of Equality Federation, Campaign Against Homophobia and other Polish NGOs for their support with recruitment of study participants. Finally, we want to thank everyone who translated, consulted, and provided us with feedback on the questionnaire and the manuscript.

Address: Karolina Koziara
Jagiellonian University
Institute of Psychology
30-060 Kraków, Ingardena Street 6
e-mail: karolina.koziara@doctoral.uj.edu.pl