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Family and demographic factors related to alexithymia in Polish students

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Summary

Alexithymia is a personal trait in which an individual is unable to identify and describe their emotions. The main features of alexithymia include inability to recognize and identify feelings, to verbally describe feelings and to distinguish between different emotions and their bodily expressions.

Aim: The aim of the present study was to examine the rates of alexithymia among Polish students and their relationships with specific university majors, sociodemographic variables and family problems.

Material and methods: The study sample consisted of 1125 participants form 27 Polish universities, 869 women and 256 men, aged from 18 to 40. All participants completed a self-designed sociodemographic questionnaire and the Toronto Alexithymia Scale– 26.

Results: The majority of our sample (56%, n=635) scored high on alexithymia. It correlated positively with alcohol abuse (p=.02) and domestic violence in the family of origin (p=.03). There were no significant correlations between alexithymia, gender and selected university majors (p>.05).

Discussion: Gender and selected university majors do not affect the prevalence of alexithymia. The results indicate positive correlations between family problems and alexithymia.

Conclusions: Our findings suggest that alexithymia is widespread among Polish students.

alexithymia, alcohol abuse, students, emotions

INTRODUCTION

In the early 1970s, psychiatrists Peter Emanuel Sifneos and John Case Nemiah coined the term alexithymia, which literally translates as "lack of words for emotions" [1,2]. The concept of alexithymia was first described in patients who suffered from psychosomatic disorders. Alexithymia consists of a multifaceted constellation of characteristics, including: difficulties in using language to describe feelings, inability to distinguish between emotions and bodily symptoms, difficulty in describing feelings verbally, lack of fantasy and imagination, and externally oriented thinking [3]. The following features could also be found among individuals who score high on alexithymia: higher risk of developing negative mental states, low intensity of positive emotions, narrow range of interests, and inability to cope

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with stress [4]. Alexithymia is estimated to affect approximately 10% of the general population [5], and it follows aa normal distribution [6]. Men are more often found to be alexithymic than women (9-17% vs 5-10%) [7].

Controversy surrounds the etiology of alexithymia. It was found that alexithymia could be connected with dysfunctional early childhood relationships with caregivers and a lack of maternal support [8], resulting in deprivation of a child's needs [9]. Early childhood trauma disturbs and delays proper emotional regulation. Krystal [9] distinguishes two forms of such trauma – type 1 (a single traumatic event which was health – or life-threatening to the child) and type 2 (cumulative effect of chronic traumatic events, for example: separation due to guardians' departure or hospitalization, child's neglect and abuse, cold and unstable behavior of caregiver, overprotectiveness and violation of the body, sexual assault). Type 2 trauma is also described as a relational or attachment trauma [10], and as such is connected to development of alexithymia as a style of dealing with emotions. In her recent paper, Zdankiewicz-Ścigała [11] suggested that early childhood trauma may lead to development of permanent defense mechanisms such as alexithymia and dissociation.

Alexithymia has been associated with a number of mental disorders. It has been found that 37% of individuals with depression manifest alexithymic features [6]. Other research has shown that alexithymia is related to eating disorders, obsessive compulsive disorder, substance abuse and anxiety [12]. A few studies have researched alexithymia in student populations, suggesting that the choice of the field of study could depend on a personal level of alexithymia [13].

The aim of this study was to assess the prevalence of alexithymia among Polish students, and investigate its associations with selected university majors, sociodemographic variables and reported family problems. Based on previous findings [13,14], we hypothesized that students of science should score higher on alexithymia than students of humanities and medicine, and that dysfunctional family relationships may result in higher levels of alexithymia.

METHOD

Participants

1125 students from 27 Polish universities participated in the study. The majority (n=869) were females. The mean age was 22.25 years (SD=2.07, range = 18 – 40). The sample included students of: medicine (n=625), technical majors (n=165), economics (n=144), humanities (n = 141), and military (n=50).

Measures

In order to recruit a large sample, an anonymous online survey was constructed. Recruitment advertisements including a link to the survey were distributed via social media (http://www.facebook.com). No personal information was collected. The instrument used in the study included a self-designed sociodemographic questionnaire and the Toronto Alexithymia Scale – 26.

Sociodemographic questionnaire

A sociodemographic questionnaire was used to gather information pertaining to gender, age, faculty of study, marital status, sexual orientation, family relationships, diagnosed mental disorders.

The Toronto Alexithymia Scale (TAS – 26)

The Toronto Alexithymia Scale (TAS) is the most widely used self-report measure of alexithymia. It was developed in 1985 by Taylor and Bagby [15]. In this study we used the TAS – 26 questionnaire translated into Polish by Maruszewski and Ścigała [3]. The TAS-26 consists of 26 items, grouped into 4 subscales: Factor 1 – difficulty to identify and distinguish between feelings and bodily sensations; Factor 2 – difficulty to describe feelings; Factor 3 – reduced daydreaming; Factor 4 – externally-oriented thinking. The TAS-26 items are rated on a 5-point Likert scale, whereby 1 = "strongly disagree" and 5 = "strongly agree". The total alexithymia score is the sum of responses to all 26 items (from 26 to 130 points), while the score for each subscale fac-

tor is the sum of the responses to that subscale. The TAS-26 has demonstrated good psychometric properties [16,17]. The creators of the TAS-26 suggest the following cut – off scoring: equal to or above 74 indicating high level of alexithymia, scores 63 – 73 implying possible alexithymia and scores equal to or below 62 points pointing to absence of alexithymia [18]. In the present study, the Cronbach α of the TAS – 26 total score was satisfactory (α = .62)\

STATISTICAL ANALYSIS

The data analysis was performed using SPSS 12.00 PL for Windows. Alexithymia was considered a categorical variable in this study. Kruskal–Wallis rank tests were performed to assess between-group differences for non-normally distributed data. χ^2 tests were used to analyze dichotomous or categorical data. For all statistical analyses, differences were considered significant at $p < .05$.

RESULTS

The sociodemographic characteristics of the study group are presented in Table 1.

Table 1. Sociodemographic characteristics of the study group

Descriptive statistics	[n]	[%]
Field of study:		
Medicine	625	55.65
Technical majors	163	14.5
Economics	144	12.82
Humanities	141	12.56
Military	50	4.45
Marital/relationship status:		
In a relationship	519	46.3
Single	491	43.64
Engaged	77	6.84
Married	32	2.84
Sexual orientation:		
Heterosexual	1034	91.91
Bisexual	67	5.96
Homosexual	24	2.3
Family relationships:		
Non-dysfunctional	842	74.84
Dysfunctional	283	25.16
Family problems:		
Alcohol abuse	90	8
Parental divorce	89	7.91
Overprotection and excessive control	51	4.53
Violence	45	4
Arguments	32	2.84
Death of one parent	12	1.07
Being brought up by a single parent	14	1.24
Other	21	1.87
Diagnosed mental disorder		
No	1021	90.76
Yes	104	9.24

Prevalence rates of alexithymia

A total of 1125 individuals completed the survey. According to the previously established TAS cut-off scores, the majority of the sample (56%, n=635) scored high on alexithymia, 433 (39%) students manifested possible alexithymia, while only 57 (5%) respondents were non-alexithymic. The mean TAS score of the entire group was 75.6 ± 9.37 SD. Rates of alexithymia and its relationships with selected major and gender are presented in Table 2. The differences in gender and selected majors were not statistically significant (p>.05).

Table 2. Rates of alexithymia and its relations to faculty of study and gender

Gender	Males (n = 256)		Females (n = 869)	
High level of alexithymia	136 (53.13%)		499 (57.42%)	
Faculties of study	medicine	73(52.52%)	medicine	270(55.56%)

	polytechnics	33(62.26%)	polytechnics	70(63.64%)
	humanities	3(30%)	humanities	74(56.49%)
	economics	21(58.33%)	economics	14(38.89%)
	military	6(37.50%)	military	15(44.12%)
Pearson's χ^2	0.25*	0.25*		

Note. *p< .05

We found a significant difference in occurrence of family problems between females and males (p=.03) (see Table 3). Women were more likely to experience the following four problems: alcohol abuse by a family member, physical or psychological domestic abuse, divorce of parents and overprotection/excessive control. Moreover, alexithymic individuals reported family problems significantly more often than non-alexithymic students (p=.0001, 66.78% vs 5.30%). Table 4 presents significant and non-significant correlations between high levels of alexithymia and family problems.

Table 3. Correlation between gender and family problems

	Males (n = 256)	Females (n = 869)	Pearson's χ^2
Decent family relationship	205(80.08%)	637(73.30%)	.03*
Dysfunctional family relationships	51(19.92%)	232(26.70%)	

Note. *p< .05

Table 4. Correlations between high level of alexithymia and family problems

Family problems	Individuals with high level of alexithymia	Pearson's χ^2
Alcohol abuse	62.22%	.02*
Violence	75.56%	.03*
Divorce	60.67%	.70*
Overprotection	70.59%	.11*

Note. *p< .05

DISCUSSION

The first finding of our study is that there is no difference between men and women in the occurrence of alexithymia. High alexithymia scores in women may be accounted for by the fact that 26.7 % of them experienced family problems. Similar results were reported by Pasini among Italian non-clinical subjects [19]. In contrast to our findings, two large-scale studies in general populations of Finland and Germany found men to be almost twice more alexithymic than women [7,20]. This could be explained by socialized (traditional) gender roles for males and females – it is more difficult for many men to cope with emotions as they have been taught not to show their feelings since the very childhood.

Our analysis did not show significant differences in total TAS-26 scores between selected university majors and alexithymia. Previous studies indicate that science students present the highest levels of alexithymia [13,14]. Given that our findings are based on an unequal sample size, they should be treated with the utmost caution.

Interestingly, total prevalence of alexithymia among Polish students is strikingly high (56% of respondents). This finding may reveal the cultural impact of occurrence of alexithymia. According to Maruszewski and Ścigała [3], Poles score higher in TAS-26 than populations from other countries. So far, the significance of this

finding is not clear. We were not able to find any direct reason for such an outcome, other than the potential effect of the selected research methodology. Similar results were reported in Korean and Iranian college students [12,21]. Our results are in contrast with findings from other European countries (England, the Czech Republic), which demonstrate that alexithymia might not be as common (5.7 – 18%) [13,14].

Our most remarkable finding is the positive correlation between alexithymia and family problems. 283 students (25.16%), mostly women, admitted that they experienced dysfunctional family relationships. The most commonly reported problem (8% of respondents) was alcohol abuse by a family member. Such results are similar to findings demonstrating alcohol abuse in 10.9% Poles aged 18-64 years, with a significant difference between men (18.6%) and women (3.3%) [22].

In the literature there are many examples of correlations between parental alcoholism and increased levels of alexithymia in their offspring [23-25]. Alexithymia could result from caregivers' negligence, which has a negative impact on children's emotional development. Hence, it appears reasonable to assume that those patterns can lead to deficits in emotional self-regulation [26]. The second significant problem is domestic violence, acknowledged by 4% of respondents (n=45). According to previous research, individuals exposed to child maltreatment may experience impaired emotional processing and thus may be at a higher risk of developing alexithymia [27-29]. Also, those who were exposed to two or more types of childhood abuse had higher mean TAS-26 scores [30]. This dependency could be explained by abused children's inability to recognize and adequately process negative emotional stimulation, as well as their increased likelihood to act out in response to negative affect [31]. Finally, students who reported overprotection and parental divorce scored higher in TAS-26 (though these results were not statistically significant).

This study has several limitations. Firstly, it was based on a self-report questionnaire, which entails the risk of a reporting bias and many associated confounding factors. In addition, given that alexithymia is characterized by a difficulty in identifying and expressing emotions, the reliability of the self-report questionnaires which were used in the present research may be put into question. Secondly, it is a cross-sectional survey that has been conducted in a non-clinical sample and therefore cannot be used to draw definitive conclusions. Last but not least, we sampled only one main social networking service and due to participant self-selection it might not represent the characteristics of the entire population of Polish students.

CONCLUSIONS

In this paper, we have illustrated the prevalence and factors related to alexithymia in Polish students. To our knowledge, this is the first attempt to tackle this problem in the population of Polish young adults. Despite its limitations, this study provides several important findings. We have reported a surprisingly high proportion of respondents who exceeded the TAS-26 threshold of alexithymia. Another key finding is that high level of alexithymia is positively correlated with dysfunctional family relationships. Authors believe that it will constitute a starting point for further investigations of this interesting personality construct.

CONFLICT OF INTEREST

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