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Indirect self-destructiveness and psychological gender

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Summary

Aim: Behaviours causing harm to a subject are generally called self-destructive behaviours. For some time now direct/acute self-destructiveness and indirect/chronic self-destructiveness have been distinguished. Human activity is determined to a large degree by not only biological,(somatic) sex but also psychological gender. The aim of the study was to examine relationships between indirect self-destructiveness and types of psychological gender.

Material and method: 558 individuals (399 females and 159 males) aged 19-25 were studied (mean age: 22.6). The age of the females ranged from 19 to 24 (mean age: 22.4) and of the males – from 19 to 25 (mean age: 22.8). In order to examine the intensity of indirect self-destructiveness, the Polish version of the Chronic Self-Destructiveness Scale by Kelley (CS-DS), as adapted by Suchańska, was applied. The psychological gender was examined by means of the Polish version of the Bem Sex Role Inventory (BSRI) by Bem, as adapted by Kuczyńska.

Results: The highest scores on indirect self-destructiveness were achieved by non-sextyped individuals, lower – by sex-typed and cross-sex-typed individuals (very similar scores). In females, indirect self-destructiveness positively correlates with the masculinity scale, whereas in males, it negatively correlates with the femininity scale.

Conclusions: Biological sex and psychological gender are qualitative variables that differentiate the intensity of indirect self-destructiveness. Psychological gender opposite to biological sex is of significance to the intensity of indirect self-destructiveness. The psychological dimension of femininity protects against indirect self-destructiveness, while the psychological dimension of masculinity predisposes to it.

Key words: indirect self-destructiveness, psychological gender, masculinity, femininity.

The study has not been sponsored

Introduction

Biological sex is a set of features an individual is born with; it seems to be an obvious and natural matter. On the other hand, psychological gender, and in particular a "configuration" of psychological feminine and masculine traits of every individual, independent of his or her biological sex, appears to be less obvious and natural.

Although the first descriptions of the issue of psychological gender are ascribed to Terman in 1936 [1], it was Money *et al.* who were the first to significantly contribute to that field, by differentiating between biological structures such as sex chromosomes and psychological concepts such as gender identity; they used the term of "sex" with reference to physical features of an individual and the term of "gender" with reference to psychological traits and behaviour of an individual [2-4][1]. A little later, Sandra Lipsitz Bem presented her concept that rejected the traditional dichotomous or bipolar model of masculinity-femininity by arguing that people have both those traits to a larger or smaller degree independent of their biological sex. A configuration of psychological traits connected with gender (independent of biological sex) leads to four types of psychological gender. Sex-typed individuals have psychological traits consistent with their biological sex (feminine females, masculine males). Cross-sex-typed (sex-reversed) individuals have psychological traits consistent with the sex opposite to their biological sex (masculine females, feminine males). Androgynous individuals have to a considerable degree both feminine and masculine features. Non-sex-typed (undifferentiated) individuals have both feminine and masculine features developed to a small degree [1, 5, 6, 7]. Initially, she considered the two latter groups (androgynous and non-sex-typed individuals) to be androgynous ones, most likely due to the lack of predominance of any of the psychological gender dimensions. It was only later that she discovered differences between those two groups.

Biological sex and psychological gender determine human activity. In turn, that activity may have consequences other than intended or completely unexpected, or even harmful to an individual, irrespective of the degree of awareness of the subject in that respect and irrespective of the time perspective (now and immediately vs. later) or type of harm (physical vs. psychological harm).

A majority of authors most frequently understand "self-destructive behaviours" as behaviours involved in direct self-destructiveness, mainly self-mutilations, self-inflicted injuries and suicide attempts or committed suicides. The literature most commonly offers studies into direct self-destructiveness or specific and isolated behaviours being manifestations of what we now call indirect or chronic self-destructiveness. It was found, for example, that in the population of drug abusers direct self-destructiveness in males differs from direct self-destructiveness in females: women more often think about suicide and more often commit suicide attempts; in turn, the number of ways or means by which men commit suicide, is higher than in women [8].

1 Some authors relate the introduce of the concept of "gender" with the work of Simone de Beauvoir's "The Second Sex".

As long as the issue of directly self-destructive behaviours (suicides, self-inflicted injuries etc.) is clear and does not raise doubts, less acute and "subtle" forms of self-harm or decreasing the quality of and/or shortening one's life are not immediately and directly noticeable (risky behaviours, addictions, neglects etc.). Less attention is usually paid to them, especially as many of them are regarded as universally (or at least commonly) occurring behaviours and thus "normal" ones.

Kelley describes chronic self-destructiveness as a generalised tendency to undertake behaviours increasing the likelihood of negative and decreasing the likelihood of positive consequences for the subject [9]. For the purposes of this study, it was assumed that indirect/chronic self-destructiveness is behaviours whose likely negative consequences are intermediated by additional factors, while the relationship between the behaviour and harm is perceived as likely. Indirect self-destructiveness understood in such a way comprises both taking and abandoning specific actions; it concerns getting into hazardous and increased-risk situations (active form) or neglecting one's safety or health (passive form). Moreover, indirect self-destructiveness is a form of self-destruction with an increased temporal distance between an action and its consequence [10, 11].

There are few studies into indirect self-destructiveness; there are even fewer studies into the gender differentiation of indirect self-destructiveness as a generalised behavioural tendency carried out in a comprehensive, holistic manner [*cf.* 12]. Most of the performed studies concerned direct self-destructiveness; it was found, for instance, that females exhibit passive self-destructiveness [13]. There were also studies into specific, isolated indirectly self-destructive behaviours which indicated that males are more prone to such risky behaviours as abusing alcohol, not fastening their seat belts in vehicles, performing hazardous work (jobs) and undertaking criminal activity [14, 15]. It is also worth mentioning that in the United States 95% of victims of fatal accidents at work are males [15, 16]. In males, positive correlations between illegal drug use, aggressive or criminal activity, risky sexual behaviours, alcohol abuse and irresponsible behaviours of students or at work were observed [17].

As a result of one of the few projects conducted applying the "Chronic Self-Destructiveness Scale", it was found that CS-DS scores of female juvenile delinquents were below those of male juvenile delinquents but similar to scores of young males not being delinquents [18].

It is a well-known fact that males display more self-destructive behaviours but most studies and data concern direct self-destructiveness. Furthermore, the world literature offers hardly any studies into relationships between indirect self-destructiveness and types of psychological gender.

The aim of this study was to examine relationships between indirect self-destructiveness and types of psychological gender.

Material and Method

The population of 558 individuals (399 females and 159 males) aged 19-25 was studied (mean age: 22.6). The age of the females ranged from 19 to 24 (mean age:

22.4) and of the males – from 19 to 25 (mean age: 22.8). All subjects were mentally and somatically healthy.

In order to examine the intensity of indirect self-destructiveness in the studied population, the Polish version of the Chronic Self-Destructiveness Scale by Kelley (CS-DS) [9], as adapted by Suchańska [10], was applied. In order to examine chronic (indirect) self-destructiveness as a generalised tendency, Kelley created a research tool comprising four categories of behaviours; the final version is a set of 52 statements. Both the Polish and original versions of the tool are characterized by high reliability and validity [9, 10].

The psychological gender was studied by means of the Polish version of the Bem Sex Role Inventory (BSRI) by Bem [1, 2], as adapted by Kuczyńska [6, 7]. Scores achieved on two dimensions (femininity and masculinity) allow to classify the subjects as belonging to four types of psychological gender: sex-typed (masculine males, feminine females), androgynous (having feminine and masculine traits to an equal degree), cross-sex-typed (sex-reversed) (masculine females, feminine males) and non-sex-typed (undifferentiated) individuals. Both the original and Polish versions of the BRSI are characterised by high reliability and validity [1, 2, 6, 7].

The statistical analysis of received scores applied descriptive and statistical inference methods. In order to determine the mean value of quantitative features, the arithmetic mean (x, M) was calculated, while the standard deviation (SD) was assumed to be the measure of dispersion. The statistical processing of received scores applied the non-parametric analysis of variance (ANOVA) and post-hoc comparisons using the Tukey's HSD (Honestly Significant Difference) test for unequal N; in order to examine relationships between the studied variables, the Pearson r correlation coefficient was used. For all the analyses, the maximum allowable type I error was assumed at $\alpha=0.05$; $p\leq0.05$ was considered statistically significant. The statistical analyses were performed by means of the *Statistica PL 10.0 for Windows* [19] statistical package.

Results

In the studied population, a majority of individuals were sex-typed (234 individuals, including 194 females and 40 males) and androgynous (196 individuals, including 127 females and 69 males); whereas cross-sex-typed individuals were the fewest (44 individuals, including 24 females and 20 males) and there were a little more non-sex-typed individuals (84 individuals, including 54 females and 30 males).

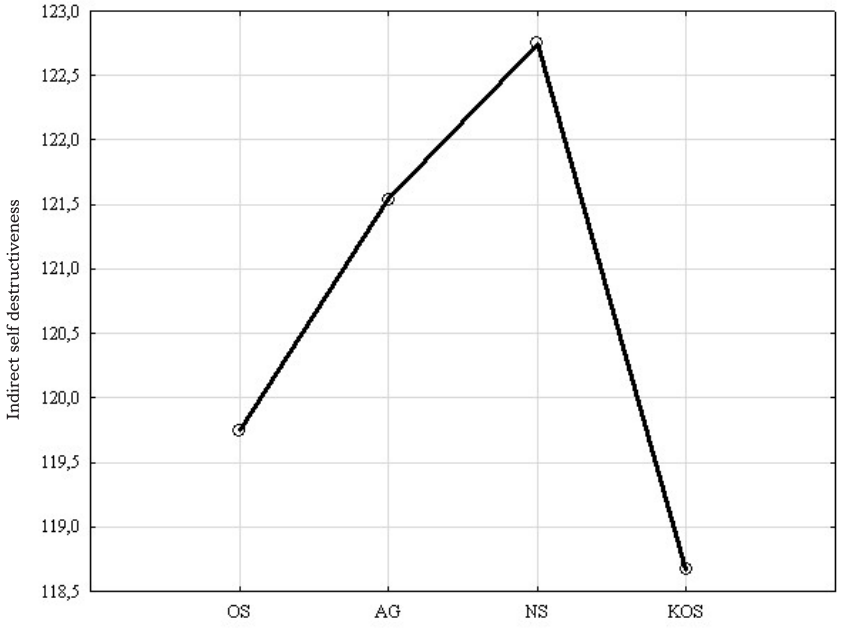
Table 1 and Figure 1 indicate that the type of psychological gender (not taking into account biological sex) statistically significantly differentiates the intensity of indirect self-destructiveness as a generalised behavioural tendency (ANOVA, $F= 2.385$; $p= 0.01$; Tukey HSD for unequal N).

Table 1**: ANOVA and post-hoc comparisons of scores in the CS-DS (Tukey HSD for unequal N, 4 groups).**

Independent (grouping) Variable: Psychological Gender	ANOVA, F=2,385; p=0,01			
	1. OS M=119,750	2. AG M=121,536	3. NS M=122,750	4. KOS M=118,667
1. OS		ns.	0,01	ns.
2. AG	ns.		ns.	ns.
3. NS	0,01	ns.		0,001
4. KOS	ns.	ns.	0,001	

OS: Sex-Typed; AG: Androgynous; NS: Undifferentiated; KOS: Cross-Sex-Typed.

Figure 1**: Subjects' scores in the CS-DS (Psychological Gender).**



OS: Sex-Typed; AG: Androgynous; NS: Undifferentiated; KOS: Cross-Sex-Typed.

The highest scores on indirect self-destructiveness were achieved by non-sex-typed individuals, lower – by sex-typed and cross-sex-typed individuals (very similar scores).

A little more light can be shed on the above results by examining differences in the intensity of indirect self-destructiveness taking into consideration both psychological gender and biological sex.

Table 2 and Figure 2 indicate that biological sex and the type of psychological gender statistically significantly differentiate the intensity of indirect self-destructiveness

as a generalised behavioural tendency (ANOVA, F=2.459; p =0.001; Tukey HSD for unequal N).

Table 2**: ANOVA and post-hoc comparisons of scores in the CS-DS (Tukey HSD for unequal N, 8 groups).**

Independent (grouping) Variables: (Biological) Sex, Psychological Gender; ANOVA, F=2,459; p=0,001								
	1.KK M = 119,062	2. AGK M = 123,000	3. NSK M = 118,111	4. MK M = 124,750	5. MM M = 125,250	6. AGM M = 117,143	7. NSM M = 136,667	8. KM M = 106,500
1. KK		ns.	ns.	ns.	ns.	ns.	0,003	ns.
2. AGK	ns.		ns.	ns.	ns.	ns.	0,02	0,01
3. NSK	ns.	ns.		ns.	ns.	ns.	0,005	ns.
4. MK	ns.	ns.	ns.		ns.	ns.	ns.	0,009
5. MM	ns.	ns.	ns.	ns.		ns.	ns.	0,008
6. AGM	ns.	ns.	ns.	ns.	ns.		0,004	ns.
7. NSM	0,003	0,02	0,005	ns.	ns.	0,004		0,00001
8. KM	ns.	0,01	ns.	0,009	0,008	ns.	0,00001	

KK: Feminine Women; MK: Masculine Women; MM: Masculine Men; KM: Feminine Men; AGK: Androgynous Women; NSK: Undifferentiated Women; AGM: Androgynous Men; NSM: Undifferentiated Men.

Indirect self-destructiveness as a generalised behavioural tendency was the most intense in the group of non-sex-typed males and the least intense in feminine males. The other types of psychological gender formed two clusters: scores of masculine males, masculine females and androgynous females were very similar (predominance of the psychological dimension of masculinity or at least an equilibrium of both the dimensions), whereas the other cluster comprised feminine females, non-sex-typed females and androgynous males.

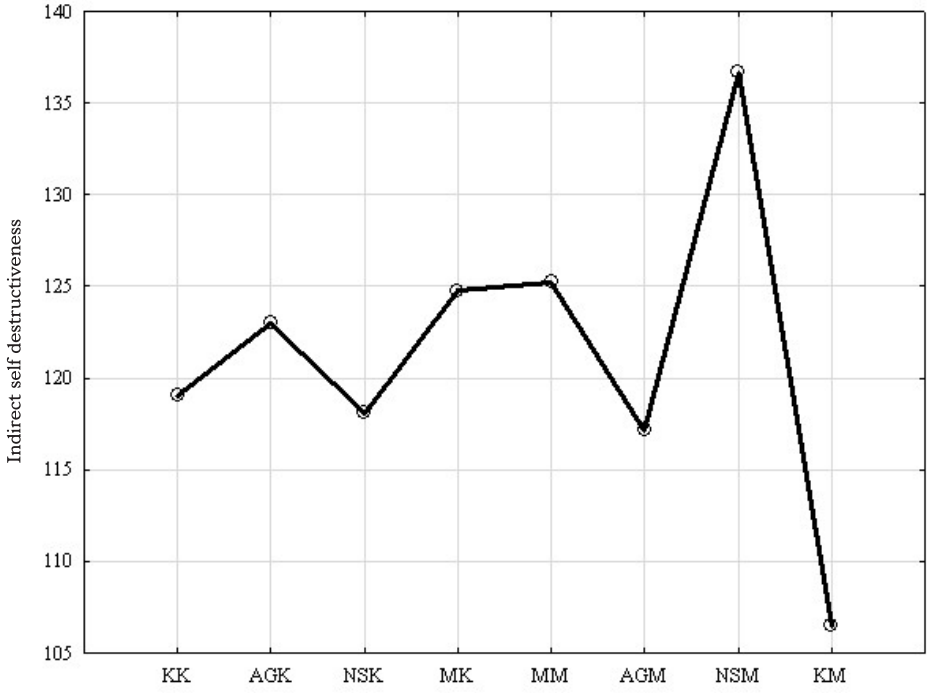
Based on the above, one can venture to state that males usually achieve extreme scores in terms of the intensity of indirect self-destructiveness: the highest and the lowest.

It is worth noticing that the second highest scores on the intensity of indirect self-destructiveness are those of masculine males, while the lowest are the scores of feminine males and androgynous males (predominance of the psychological dimension of femininity or at least an equilibrium of both the dimensions). On the other hand, the second lowest scores on the intensity of indirect self-destructiveness are those of non-sex-typed and androgynous females (no predominance of any of the psychological gender dimensions).

In order to examine relationships between indirect self-destructiveness as a generalized behavioural tendency and specific types of psychological gender a correlation analysis was performed (the Pearson r).

In a recently published study, it was found that there are relationships between indirect self-destructiveness as a generalised behavioural tendency and psychological gender: positive correlations with masculinity and negative correlations with femininity [12].

Figure 1**: Subjects' scores in the CS-DS (Biological Sex and Psychological Gender).**



KK: Feminine Women; MK: Masculine Women; MM: Masculine Men; KM: Feminine Men; AGK: Androgynous Women; NSK: Undifferentiated Women; AGM: Androgynous Men; NSM: Undifferentiated Men.

This study attempts to explore those relationships for females and males separately.

Table 3 and Figures 3 and 4 show that there is no statistically significant correlation between the femininity scale and CS-DS in the group of females. On the other hand, the masculinity scale positively correlates with indirect self-destructiveness (0.218; p: 0.001).

Table 4 and Figures 5 and 6 show that there is no statistically significant correlation between the masculinity scale and indirect self-destructiveness in the group of males. On the other hand, the femininity scale negatively correlates with indirect self-destructiveness (-0.404; p: 0.002).

Table 3**: Correlation coefficients between indirect self-destructiveness and the dimensions of psychological gender in the women group.**

Variables	Masculinity	Femininity
Indirect Self-Destructiveness	0.218	0.007
	p=0.001	ns.

Figure 3: **Scatterplot matrix of the scores in the CS-DS and the Masculinity scale in the women group.**

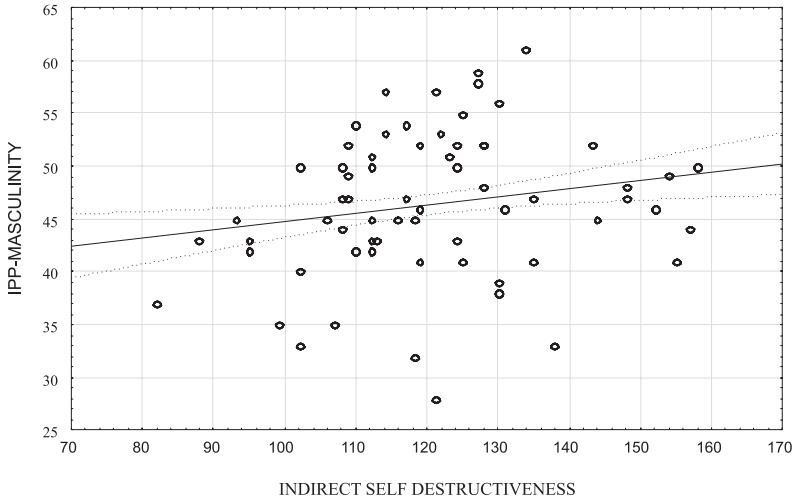


Figure 4: **Scatterplot matrix of the scores in the CS-DS and the Femininity scale in the women group.**

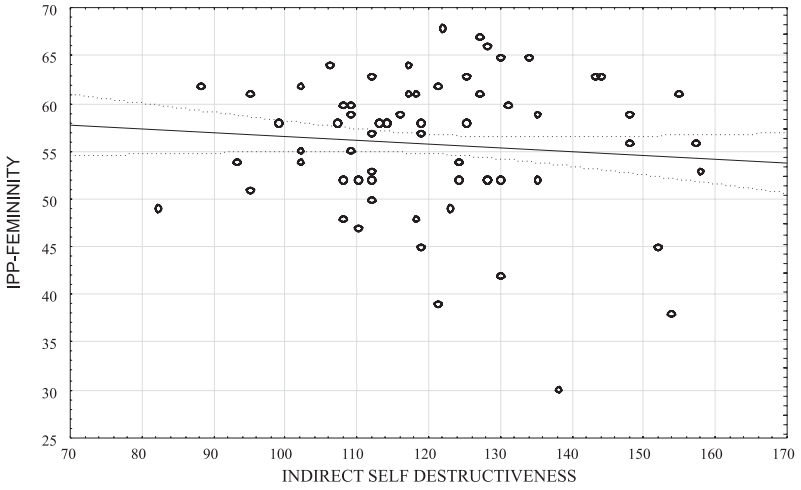


Table 4: **Correlation coefficients between indirect self-destructiveness and the dimensions of psychological gender in the men group.**

Variables	Masculinity	Femininity
Indirect Self-Destructiveness	0.059	-0.404
	ns.	p=0.002

Figure 5: **Scatterplot matrix of the scores in the CS-DS and the Masculinity scale in the men group.**

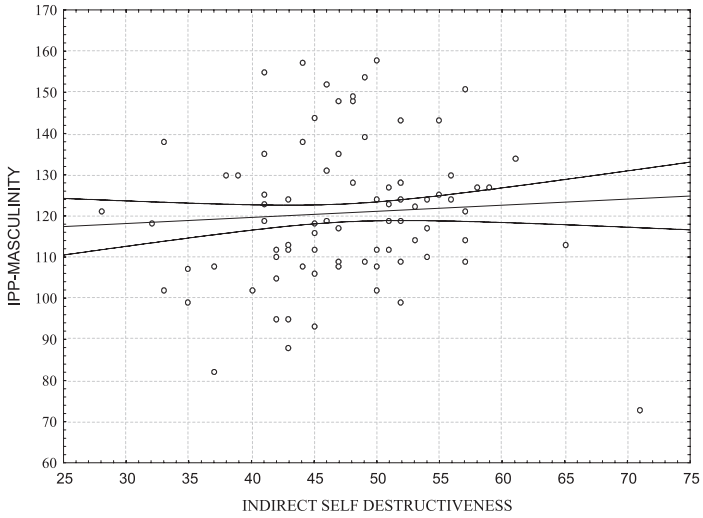
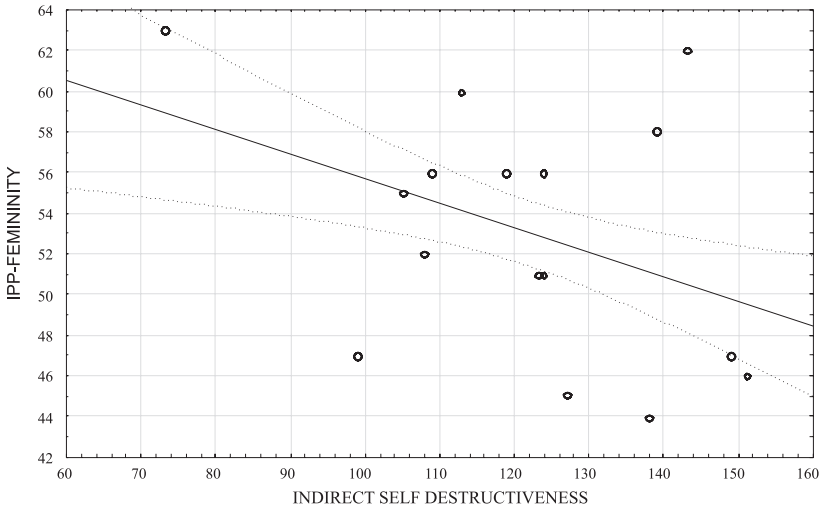


Figure 6: **Scatterplot matrix of the scores in the CS-DS and the Femininity scale in the men** group.



Discussion of Results

In the whole studied population, there was the greatest number of sex-typed (feminine females, masculine males) and androgynous individuals; there were fewer non-sex-typed individuals and the fewest cross-sex-typed individuals (masculine females and feminine males).

Due to the lack of studies in that scope, it will be difficult to refer to results of other research. One of the few studies indicated that males display a higher intensity of indirectly self-destructive tendencies and the masculinity dimension is characterised by considerably higher predispositions towards undertaking risky and potentially harmful behaviours than the femininity dimension [12].

A closer look should be taken at the higher intensity of indirect self-destructiveness as a generalised behavioural tendency in non-sex-typed individuals and its lower intensity in sex-typed and cross-sex-typed individuals. It can be inferred from such a distribution of results that a sense of "undifferentiation" of one's gender predisposes to indirect self-destructiveness, which can be substantiated by the lower intensity of indirect self-destructiveness in sex-typed individuals, even those being cross-sex-typed! Unknowns, a sense of uncertainty and cognitive dissonance are factors not easy to cope with for everyone. Similar conclusions can be drawn from results of other studies where the highest intensity of depressive disorders was observed in non-sex-typed individuals too [20]. Moreover, from the perspective of positive psychology and personal resources, relationships are similar: non-sex-typed individuals are characterised by lower life satisfaction, optimism, sense of self-efficacy and personal competence [21]. Those data point to the worse psychological adjustment and functioning of non-sex-typed individuals.

The above differences, relationships and other regularities may become clearer if considered in the light of results received by applying both psychological gender and biological sex as qualitative predictors.

Biological sex, taking into account the type of psychological gender, differentiates the intensity of indirectly self-destructive tendencies and behaviours.

The fact that the highest scores were achieved by non-sex-typed males may lead to an statement that a low degree of both feminine and masculine traits in males is a factor predisposing to indirect self-destructiveness. Similarly to non-sex-typed individuals in general (not taking into consideration their biological sex), indices of worse psychological adjustment and functioning are high in non-sex-typed males [20, 21]. It is also important to observe that it is thanks to males (or because of them) that the whole group of non-sex-typed individuals obtains such high scores; the intensity of indirect self-destructiveness in non-sex-typed females is lower. It can be assumed that the lack of a sense of sex differentiation seems to be a more difficult situation and stronger stressor to males rather than females. CS-DS scores of non-sex-typed females are close to mean scores; hence, it can be presumed that they cope with that sense better than males.

Another issue that is worth considering is the fact that males achieved "extreme" scores (Table 2, Figure 2): non-sex-typed males achieved the highest and feminine

males the lowest scores; in other words, males "give the tone", form the distribution of scores, create the picture of indirect self-destructiveness within specific types of psychological gender (not taking into account biological sex) as non-sex-typed individuals (in general) obtained the highest and cross-sex-typed individuals obtained the lowest scores.

It has already been mentioned that two clusters were formed in the scope of the intensity of indirect self-destructiveness as a generalised behavioural tendency: one includes masculine males, masculine females and androgynous females (higher CS-DS scores; predominance of the psychological dimension of masculinity or at least an equilibrium of both the dimensions) and the other comprises feminine females, non-sex-typed females and androgynous males (lower CS-DS scores). Thus, it can be presumed that the psychological dimension of masculinity determines the higher intensity of indirect self-destructiveness as a generalised behavioural tendency.

Androgynous individuals (males and females) obtained "intermediate" scores: neither the highest (as such were achieved by non-sex-typed males) nor the lowest (as such were achieved also by males but feminine ones in that case). In the group of individuals suffering from depression, androgynous individuals showed the lowest intensity of depressive disorders [20]. On the other hand, androgynous individuals had the greatest psychological resources in the form of life satisfaction, optimism, sense of self-efficacy and competence [21]. Bem's (hypo)thesis that an equilibrium of feminine and masculine traits occurring in androgynous individuals is an optimal pattern for mental health may be accurate; according to her, the condition for the fully effective human functioning is the complete integration of one's masculinity and femininity in a more balanced, fuller, genuinely androgynous personality [1, 22].

Indirect self-destructiveness is positively associated with the psychological dimension of masculinity and negatively associated with the psychological dimension of femininity [12].

Negative correlation between indirect self-destructiveness as a generalised behavioural tendency and the psychological dimension of femininity in males may indicate that femininity is as factor protecting males against indirect self-destructiveness.

In the group of females, positive correlation between indirect self-destructiveness and the psychological dimension of masculinity may indicate that masculinity determines indirect self-destructiveness in females; on the other hand, the psychological dimension of femininity seems not to be particularly important for indirect self-destructiveness in females.

Therefore, it can be stated that psychological gender opposite to biological sex – the psychological dimension of femininity for males and the psychological dimension of masculinity for females – is of importance to the development of indirect self-destructiveness. The direction of the relationship remains as earlier observed [12]: femininity protects against indirect self-destructiveness and masculinity predisposes to it.

An answer to the question about the cause of such relationships may be hidden in results of other studies. Namely, it was found that females characterised by high indirect (chronic) self-destructiveness displayed tendencies towards negative masculine features (e.g. arrogance) and verbal aggression but lacked positive masculine traits

(e.g. expansiveness) and positive feminine features (e.g. sensitivity) that could prevent indirect (chronic) self-destructiveness; on the other hand, males exhibiting high indirect self-destructiveness lacked the same positive traits as well. The results may suggest that problems with coping and behavioural difficulties are affected by similar factors in males and females but in females there are additional negative factors, such as "negative masculinity", that can make successful functioning more difficult for them [23].

Kelley [23] states that chronic self-destructiveness is not androgynous but rather sex-typed; results of this study indicate that chronic or indirect self-destructiveness is rather masculine, which is consistent with results of another study [12].

Results of this study may prove useful in clinical therapeutic work. In psychological help or psychotherapy, it may be worth considering the generally beneficial impact of the psychological dimension of femininity, while keeping in mind the not necessarily beneficial impact of the psychological dimension of masculinity.

Conclusions

1. Psychological gender is a factor that differentiates the intensity of indirect self-destructiveness whose highest intensity occurs in non-sex-typed individuals.
2. Biological sex and psychological gender together are qualitative variables that differentiate the intensity of indirect self-destructiveness: the highest intensity occurs in non-sex-typed males and the lowest – in feminine males.
3. Psychological gender opposite to biological sex is significant to the intensity of indirect self-destructiveness:
4. For males – the psychological dimension of femininity,
5. For females – the psychological dimension of masculinity.
6. The psychological dimension of femininity protects against indirect self-destructiveness, while the psychological dimension of masculinity predisposes to indirect self-destructiveness.

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