

## Psychological femininity and masculinity and coping with stress in athletes

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### Abstract:

On the basis of the study results it can be proved that femininity is associated mainly with emotional sensitivity as well as empathic and caring behaviour (traits determined by emotions). On the other hand, masculinity includes tendency to dominate, rationality, initiative, focus on competition and activity (traits dominated by task-oriented activity). The objective of the study was therefore to seek relations between femininity and masculinity and styles of coping with stress in groups of competitive athletes playing team sport games. The study included 49 women aged 19 to 32 years (M=22.82) representing such sport disciplines as football, handball, field hockey, volleyball and basketball. The second group included 56 men aged 18 to 31 years (M=21.54) playing team sport games like football, handball, field hockey, volleyball and basketball. Both groups included participants of the world championships and medallists of Polish and European championships. In the study the Inventory for Assessing Psychological Sex and the polish adaptation of Coping Inventory for Stressful Situations questionnaire were used. On the basis of the study it was established that both in men and in women doing team sport games, psychological masculinity is positively related with the task oriented style (the instrumental function of which is solving the problem) and style aiming for social diversion (seeking social contacts). The analysis indicated also that the indicator of femininity turned out to be related to the avoidance oriented style (characteristic for people who in stressful situations tend to avoid thinking about and experiencing the difficult situation) – including engaging in distracting activities. This second relation was noted only for female athletes which is consistent with the previous studies.

**Key Words:** gender; psychological sex; stress; coping styles; team sports.

### Introduction

There are many criteria which determine human sex. Hormonal, chromosomal (genetic), psychosexual and metrical sex can be distinguished (Berenbaum & Beltz, 2011; Ngun, Ghahramani, Sánchez, Bocklandt, & Vilain, 2011). The contemporary discussion of human sexuality comes down most often to the concepts of sex and gender. The former means biological sex and refers to physiological properties. The latter, on the other hand, describes socio-cultural gender which is a cognitive construct, arising from the social and developmental learning of femininity and masculinity present in a given culture (Krieger, 2003). One of the best verified concepts which are parts of social constructivism (Rudman & Glick, 2008), within which socio-cultural sex is described, is Sandra Bem's theory of Sex Role Inventory (BSRI) (1974; 1977; 1981), which questioned the concept of dichotomy of roles related to sex which stated that a person can be either only feminine or only masculine (Bem, 1974; Bem & Lewis, 1975). It was proved that everyone can be „characterised” by two independent orthogonal factors (Bem, 2000), femininity and masculinity, and because of that, depending on cultural models and biological determinants, sex pattern may take a more or less central position in the structure of „myself”. Thus, it was indicated that persons in whom the femininity (in case of women) and masculinity (in case of men) takes a central position avoid behaviour typical for the opposite sex, rigidly adapting to sex stereotypes. The more peripheral the position of the pattern, or the more similar the position of patterns of femininity and masculinity in the structure of „myself”, the more flexible the person is in behaviour which is „stereotypical” for a given sex (Bem, 1974; 1981).

In 1971 Bem proposed a classic list of terms related to sex roles in which she demonstrated that femininity and masculinity relate to stereotypical definitions, deeply rooted in culture. According to Bem's Sex Role Inventory feminine traits include, among others: yielding, warmth, eagerness to soothe hurt feelings, childlikeness, sympathy, cheerfulness, tenderness, understanding, gentleness, sensitivity to others' needs, loyalty, compassion, speaking softly, shyness. Masculine traits include: ambitious, analytical, acting as a leader, aggressive, athletic, competitive, forceful, leadership ability, dominant, self-reliant, individualistic, independent (Gładzewska, 2001). The findings referred to here are consistent with the results of the study carried out in thirty countries by Williams and Best (1990), who noted that women are considered to be more irritable, worrying and sentimental and men more active, vigorous, self-confident, entrepreneurial and resourceful. The social pattern of femininity assumes an emotional approach to life problems, while the masculine pattern – an involvement in

activity aimed to efficiently solve the problem. Moreover, the social pattern of femininity (often reinforced by contemporary mass media) is based often on physical attractiveness (Halliwell & Dittmar, 2003; Grabe, Hyde, & Ward, 2008). This leads to the development of indicators of ideal image of each sex – a muscular man and a slim woman (Krane, Choi, Baird, Aimar, & Kauer, 2004). In case of women this may contribute to increased intensity of chronic stress (Martz, Handley, & Eisler, 1995) the initial level of which is higher than in men (Nurullah, 2010; Kumari, 2011; Matud, Bethencourt, & Ibáñez, 2015; Perkins et al., 2016; Bottesi, Martignon, Cerea, & Ghisi, 2018; Grønning et al., 2018; Matud & García, 2019). Some authors see the reason for this in genetic factors (Pfau et al., 2016).

The accuracy of the descriptions presented above is also confirmed by empirical studies of people with a very high intensity of mental femininity who find it difficult to function in situations demanding problem solving, whereas persons with a very high intensity of masculine traits find it difficult to function in situations demanding empathy (Bem, 2000). Moreover, it was noted that a high level of masculinity in boys correlates with a better social adaptation and a high indicator of femininity in women is linked to a low social acceptance and a high level of anxiety (Bem & Lenney, 1976). According to other studies, women in difficult situations most often are overcome by emotions or prefer avoidance behaviour (Russo & Green, 2004). Mandal and Zakrzewska (2010) noted also that women who made suicide attempts in the past use emotional style in coping with stress to a larger extent, have lower results in the task-oriented style and are characterised by a lower indicator of mental masculinity than those in a control group – which may result from more emotional body defence reactions. On the basis of the study results it can be proved that femininity is associated mainly with emotional sensitivity as well as empathic and caring behaviour (traits determined by emotions and avoidance behaviour) which may also lead to more frequent experience of symptoms related to feeling depressed (Dahlin, Joneborg, & Runeson, 2005; Amr, El Gilany, & El-Hawary, 2008; Calvarese, 2015). On the other hand, masculinity includes tendency to dominate, rationality, initiative, focus on competition and activity (traits dominated by task-oriented activity) (Williams & Best, 1990; Bem, 2000; Krane, Choi, Baird, Aimar, & Kauer, 2004).

Contemporary research on the influence of femininity and masculinity on human functioning in various areas of everyday life also determines, that specific characteristics of behaviours determined by femininity and masculinity (including cultural standards) may be reflected in reactions to stressful situations (Addis & Mahalik, 2003) and in related health consequences (Holden, 2005; Kudielka & Kirschbaum, 2005; Lundberg, 2005; Kajantie & Phillips, 2006). This is explained by stronger links between masculinity and attachment to specific social standards (Eisler, Skidmore, & West, 1998), where departure from them may provoke to violent and aggressive behaviour characterised by a high intensity of harmful negative emotions (Jakupak, Lisak, & Roemer, 2002; Lundberg, 2005; Cohen & Zeichner, 2006).

This is supported by the proposal of Endler and Parker (1990) which suggests that femininity and masculinity may be related to styles of coping with stress and our research aims to verify this hypothesis. In the intention to justify this suggestion attention was paid to the role which can be assumed by individual variables determining the choice of specific ways of relieving the tension associated with a difficult situation. The results of such studies may contribute to a better understanding of the functioning styles of athletes of both genders and affect their effectiveness.

The objective of the study was to seek relations between femininity and masculinity and styles of coping with stress in groups of competitive athletes playing team sport games.

On the basis of the results of studies presented in the theoretical section and the proposed objective of the study the following research hypotheses were formulated:

1. Female athletes are characterised by a higher level of femininity than male athletes, who are characterised by a higher level of masculinity than female athletes.
2. There is a positive relation between psychological femininity and the emotional style of coping with stress. This applies to athletes of both sexes.
3. There is a positive relation between psychological masculinity and task-oriented styles of coping with stress and the style focused on seeking social contacts. This applies to athletes of both sexes.

The study included measurement of external variables, i.e. psychological femininity and masculinity (independent variables) as well as dependent variables, i.e. styles of coping with stress.

## **Material & methods**

### *Participants*

The study included 49 Polish female athletes aged 19 to 32 years ( $M=22.82$ ;  $Me=21$ ;  $SD=2.721$ ) representing such disciplines as football ( $N=22$ ), handball ( $N=9$ ), field hockey ( $N=7$ ), volleyball ( $N=6$ ) and basketball ( $N=5$ ). Mean training history of the studied women was 9.27 years ( $Me=10$  years;  $SD=4.310$ ). The group included participants and medallists of championship level competitions (Polish and European championships) in 2010-2018.

The second group included 56 Polish male athletes aged 18 to 31 years ( $M=21.54$ ;  $Me=21$ ;  $SD=2.351$ ) representing football ( $N=33$ ), field hockey ( $N=11$ ), volleyball ( $N=7$ ), basketball ( $N=3$ ) and handball ( $N=2$ ). The studied athletes had a training history of 9.84 years on average ( $Me=9.5$  lat;  $SD=4.475$ ). The group included medallists of European championships (2012-2017) and participants of the world championships.

*Measure/Instruments/Procedure*

The selection of tools was dictated by the assumption that there are links between femininity and masculinity and styles of coping with stress. Therefore, the following research tools were used:

1. The Inventory for Assessing Psychological Sex (IPP) developed on the basis of the Bem Sex Role Inventory (BSRI) (Kuczyńska, 1992). The participants' task is to describe the degree to which they are characterised by 35 traits, 15 of which reflect the cultural stereotype of femininity and 15 – that of masculinity. The participants relate to the adjectives included in the questionnaire using a five-point scale. The final score is the total number of points scored for items included in the key: the Femininity Scale (K) and the Masculinity Scale (M).
2. The Coping Inventory for Stressful Situations (CISS) (Endler & Parker, 1990; Polish adaptation: Strelau, Jaworowska, Wrześniewski, & Szczepaniak, 2007) which is used to determine the dominant style of coping with stress. The participants relate to their behaviour in 48 stressful situations using a five-point scale. The final score is the total number of points scored for individual items corresponding to the following styles of coping with stress, referring to Endler and Parker's typology (1990):
  - A. Task oriented style (SSZ) the instrumental function of which is solving the problem. This constructive style is characteristic for people who use cognitive restructuring in difficult situations or attempt to alter the situation.
  - B. Emotion oriented style (SSE) characterises people who in stressful situations tend to focus on their own emotional response, fantasising and wishful thinking.
  - C. Avoidance oriented style (SSU) is characteristic for people who in stressful situations tend to avoid thinking about and experiencing the difficult situation (Strelau, Jaworowska, Wrześniewski, & Szczepaniak, 2007). SSU may have two forms:
    - a. Distracting oneself with other situations or tasks (ACZ) i.e. binge eating, reading books, sleeping, watching television.
    - b. Seeking social contacts, social diversion (PKT), in order to avoid the need to solve the stressful situation.

The study was performed in a traditional way, in the presence of the author of the study. Before filling in the questionnaires, the participants were informed about the voluntary character of their participation, anonymity and that the data obtained would be used only for scientific purposes. The participants filled in Kuczyńska's Inventory to Assess Psychological Sex (Kuczyńska, 1992) first. Then they related to statements included in the CISS questionnaire (Endler & Parker, 1990; Strelau, Jaworowska, Wrześniewski, & Szczepaniak, 2007). After collecting all the questionnaires, statistical analysis was started.

*Statistical analysis*

The statistical analysis was carried out using Statistica 12.0 software. To compare men and women in terms of femininity and masculinity t-Student's test for independent variables was used. In order to analyse the relations between variables Pearson's correlation coefficient was used (King & Minium, 2009).

**Results**

First, the comparison between the studied women (N=49) and men (N=56) was performed in terms of mean scale values characterising femininity and masculinity. In this analysis it was noted that women training team sport games are characterised by statistically significant ( $p<0.05$ ) higher level of femininity than the male athletes. A similar difference was not noted for the indicator of psychological masculinity (Table 1).

**Table 1.** Levels of psychological femininity and masculinity in the studied female and male athletes

Psychological sex	Biological sex						
	Women (M)	Men (M)	t	df	SD (1)	SD (2)	g
<b>Femininity</b>	<b>53.84</b>	<b>50.55</b>	<b>2.42*</b>	<b>103</b>	<b>7.64</b>	<b>6.25</b>	<b>0.475</b>
Masculinity	55.92	55.30	0.50	103	6.52	6.15	–

Note. M – mean; t – value in t-Student's test; df – degrees of freedom; SD – standard deviation; g-Hedges g (effect size).

\*  $p<0.05$ .

Then the results concerning the relations between psychological femininity and masculinity and styles of coping with stress in female athletes were analysed; statistically significant and positive relation was noted between psychological femininity and the avoidance oriented style and positive ( $p<0.05$ ) relation with distracting oneself ( $p<0.05$ ). In case of masculinity statistically significant relations with task oriented style of coping with stress ( $p<0.01$ ) and social diversion ( $p<0.01$ ) were noted (Table 2).

**Table 2.** Relations between femininity and masculinity and styles of coping with stress in the studied female athletes

Psychological sex	Styles of coping with stress					
		SSZ	SSE	SSU	ACZ	PKT
	Femininity	0.03	0.04	<b>0.28*</b>	<b>0.31*</b>	0.21
Masculinity	<b>0.44**</b>	-0.23	0.08	-0.10	<b>0.39**</b>	

*Note.* SSZ – task oriented style of coping with stress; SSE – emotion oriented style of coping with stress; SSU – avoidance oriented style of coping with stress; ACZ – avoidance oriented style – distracting oneself; PKT – avoidance oriented style – social diversion.

\*\* p<0.01; \* p<0.05.

At the end, correlations between femininity and masculinity and styles of coping with stress in male athletes were tested. A positive relation between psychological masculinity and task oriented style of coping with stress (p<0.01) and a positive relation with social distraction (p<0.05) were noted (Table 3).

**Table 3.** Relations between femininity and masculinity and styles of coping with stress in the studied male athletes

Psychological sex	Styles of coping with stress					
		SSZ	SSE	SSU	ACT	PKT
	Femininity	0.22	0.03	0.04	-0.15	0.22
Masculinity	<b>0.34**</b>	-0.17	0.12	0.03	<b>0.27*</b>	

*Note.* SSZ – task oriented style of coping with stress; SSE – emotion oriented style of coping with stress; SSU – avoidance oriented style of coping with stress; ACZ – avoidance oriented style – distracting oneself; PKT – avoidance oriented style – social diversion.

\*\* p<0.01; \* p<0.05.

### Dicussion

The objective of the study was to seek relations between femininity and masculinity and styles of coping with stress in groups of competitive athletes playing team sport games. Therefore, athletes of both sexes training team sports games (like football, handball, field hockey, volleyball and basketball) took part in the study. Among them were i.e. participants and medalists of international championship sports competitions. The research tools were The Inventory for Assessing Psychological Sex (IPP) developed on the basis of the Bem Sex Role Inventory (BSRI) (Kuczyńska, 1992) and The Coping Inventory for Stressful Situations (CISS) (Endler & Parker, 1990; Polish adaptation of Strelau, Jaworowska, Wrześniewski, & Szczepaniak, 2007). On the basis of the research results presented in the theoretical chapter and the presented aim of the work, four research hypotheses were formulated, according to which the following discussion was conducted.

It was demonstrated that the level of psychological femininity is significantly higher in participating female athletes than in male athletes, which means that in terms of physical attractiveness women more than men are focused on their bodies and on normative standards of beauty (Halliwell & Dittmar, 2003; Grabe, Hyde, & Ward, 2008). This also means that women are characterised by a significantly higher level of the dimension than men which is manifested in their care for interpersonal relations (Frąckowiak-Sochańska, 2011). Such a result leads to a question concerning differences in specificity of building male and female task groups – if women have better social competences than men, it may be easier for them to build a group striving for the common cause. Moreover, in participating athletes of both sexes the level of masculinity was similar (the difference between the sexes was statistically insignificant, although women’s result was higher on the scale than men’s). This indicates the similarity of profiles of men and women doing team sport games with reference to cultural masculinity models (Burdzicka-Wołowik, 2012) and may indicate similar requirements (including psychological ones) characterising team sport competition of both men and women (Radziminski, Rompa, Barnat, Dargiewicz, & Jastrzebski, 2013; Clemente, 2016). Thus, the results are consistent with the results of studies of athletes carried out by Matteo (1986) and Kłodecka-Różalska and Kownacka (2005). The above researchers noted that sports stereotypically considered as „masculine” are more often played by persons characterised by a high level of masculinity (Starzomska & Kowalczyk, 2012).

The analysis indicated that the femininity (in both sexes) is not related to the emotion oriented style of coping (characterises people who in stressful situations tend to focus on their own emotional response, fantasising and wishful thinking). This may mean that culturally determined femininity is not as strongly related to sensitivity to tendency to focus on own emotions and chronic stress, commonly attributed to it, as it used to be (Matud, Bethencourt, & Ibáñez, 2015; Grønning et al., 2018). It can also be assumed that due to the participation in sports activity (characterised by task-orientation, competition, and co-operation) the studied women have learnt to base their activity of masculinity, „not using” at the same time the femininity, responsible for empathy and emotionality. Thus the dimension of femininity may have been lowered in the participating female athletes – at the expense of psychological masculinity. This interpretation may be confirmed by the studies of Uguccioni and Ballantyne (1980), Soroka and Bergier (2011) and Burdzicka-Wołowik (2012), who in various studies

proved that among male and female athletes in various sport disciplines, there are more people characterised by androgynous psychological sex than in a general population (which is a correlate of high level of masculine and feminine traits). These people compared to other configurations of psychological sexes, function best in social, cognitive and professional areas (Shimonaka, Nakazato, Kawaai, & Sato, 1997), which may be directly applied in activities related to sport competition.

The indicator of femininity turned out to be related to the avoidance oriented style (is characteristic for people who in stressful situations tend to avoid thinking about and experiencing the difficult situation) – including engaging in distracting activities (the scientific literature most often lists activities such as reading books, sleeping or watching TV, but these may vary according to individual predispositions). This relation was noted only for female athletes which is consistent with the previous studies (Russo & Green, 2004). The relation may mean that femininity accounts for women displaying behaviour which delays problem solving (Bem, 2000), e.g. like substituting remedial action with replacement activities which is characteristic for avoidance of experiencing difficulties (Strelau, Jaworowska, Wrześniewski, & Szczepaniak, 2007). An explanation for this may be sought in various analyses (Frydenberg & Lewis, 1993; Griffith, Dubow, & Ippolito, 2000) which prove that girls more often than boys use avoidance oriented coping strategies. Williams and McGillicuddy-De Lisi (2000) report also that girls more often choose avoidance strategies, because more often than boys they believe that they do not have control over the events.

On the basis of the study it was established that both in men and in women doing team sport games (and thus functioning in the conditions of clearly specified purposefulness of actions, as well as cooperation, sports competition and frequent physical aggression), psychological masculinity is statistically significant and positively related with the task oriented style (this constructive style is characteristic for people who use cognitive restructuring in difficult situations or attempt to alter the situation) and style aiming for social diversion, which refers to typically masculine behaviour, including entrepreneurship, analytical, leadership actions, aggressiveness and self-confidence (Williams & Best, 1990; Cohen & Zeichner, 2006). On the one hand, it is about making constructive attempts to alter difficult situations and on the other hand – involvement in actions which require social interaction which may be a buffer and support element in difficult situations (Pearlin, 1989; Marchand, Drapeau, & Beaulieu-Prévost, 2011; Tran, Lam, & Legg, 2018). These findings confirm the results of the studies which indicated better social adaptation and coping in situations demanding instrumental behaviour of people with high level of masculinity (Bem & Lenney, 1976; Whitley, 1984; Bem, 2000). The found relation between the task oriented style and psychological masculinity is consistent with the concept of Bassof and Glass (Hyde & Frost, 2004), who linked mental health (which correlates with the ability to cope with problems) to masculinity, irrespective of declared biological sex.

## Conclusions

The author's considerations and research results allow to draw the following conclusions:

1. Women who practice sports have a higher level of femininity than men, but do not differ from men in terms of psychological masculinity. This means that trained women have a similar competitive attitude to male athletes.
2. Psychological femininity is associated with a style focused on avoiding and engaging in replacement activities, but only in groups training women. Therefore, this dimension is responsible for women's behaviors that delay the solution of problems.
3. In athletes of both sexes, the dimension of masculinity is significantly related to the task style of dealing with stress and the search for social contacts. It can therefore be assumed that it is a style that mobilizes and directs the effort to face a difficult situation, including support from a reference group.
4. The continuation of the research can be based on the importance of psychological femininity and masculinity for effectiveness in various sports with different competitive requirements.

## Conflicts of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

## References

- Addis, M., & Mahalik, J. (2003). Men, masculinity, and the contexts of help seeking. *American Psychologist*, 58, 5-14.
- Amr, M., El Gilany, A., & El-Hawary, A. (2008). Does gender predict medical students' stress in Mansoura, Egypt? *Medical Education Online*, 12, 13.
- Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, 88, 354-364.
- Bem, S. L. (2000). *Męskość i kobiecość. O różnicach wynikających z płci.* (Masculinity and femininity. About gender differences). Gdańsk: GWP.
- Bem, S. L. (1977). On the utility of alternative procedures for assessing psychological androgyny. *Journal of Consulting and Clinical Psychology*, 45, 196-205.

- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42, 155-162.
- Bem, S. L., & Lenney, E. (1976). Sex-typing and avoidance of cross-sex behavior. *Journal of Personality and Social Psychology*, 33, 48-54.
- Bem, S. L., & Lewis, S. A. (1975). Sex role adaptability: One consequence of psychological androgyny. *Journal of Personality and Social Psychology*, 42, 634-643.
- Berenbaum, S. A., & Beltz, A. M. (2011). Sexual differentiation of human behavior: effects of prenatal and pubertal organizational hormones. *Frontiers of Neuroendocrinology*, 32, 183-200.
- Bottesi, G., Martignon, A., Cerea, S., & Ghisi, M. (2018). Worry and associated cognitive features in Italian university students: Does gender make a difference? *Pers Individ Differ.*, 126, 38-43.
- Burdzicka-Wołowik, J. (2012). Psychological gender of women taking up typically masculine sports activity. *Biomedical Human Kinetics*, 4(1), 24-28.
- Calvarese, M. (2015). The Effect of Gender on Stress Factors: An Exploratory Study among University Students. *Social Sciences*, 4, 1177-1184.
- Clemente, F. M. (2016). *Small-Sided and Conditioned Games in Soccer Training: The Science and Practical Applications*. SpringerBriefs in Applied Sciences and Technology. Singapore: Springer.
- Cohen, A., & Zeichner, A. (2006). Effects of masculine identity and gender role stress on aggression in men. *Psychology of Men & Masculinity*, 7(4), 179-190.
- Dahlin, M., Joneborg, N., & Runeson, B. (2005). Stress and depression among medical students: A cross-sectional study. *Medical Education*, 39, 594-604.
- Eisler, R., Skidmore, J., & West, C. (1998). Masculine gender-role stress: Predictor of anger, anxiety, and health-risk behaviors. *Journal of Personality Assessment*, 52, 133-141.
- Endler, N. S., & Parker, J. D. A. (1990). *Coping Inventory for Stressful Situations (CISS): Manual*. Toronto: Multi-Health Systems.
- Frąckowiak-Sochańska, M. (2011). Zdrowie psychiczne kobiet i mężczyzn. Płeć społeczno-kulturowa a kategorie „zdrowia psychicznego” i „chorób psychicznych”. (Mental health of men and women. Socio-cultural gender and the categories of „mental health” and „mental illness”). *Nowiny Lekarskie*, 80(5), 394-406.
- Frydenberg, E., & Lewis, R. (1993). Boys play sport and girls turn to others: Age, gender and ethnicity as determinants of coping. *Journal of Adolescence*, 16, 253-266.
- Głazewska, E. (2001). Androgyny – A Model of a Twenty First Century Human. *Annales Universitatis Mariae Curiae-Skłodowska. Sectio I, Philosophia-Sociologia*, 26, 17-28.
- Grabe, S., Hyde, J. S., & Ward, M. L. (2008). The Role of Media in Body Image Concerns Among Women: A Meta-Analysis of Experimental and Correlational Studies. *Psychological Bulletin*, 134(3), 460-476.
- Griffith, M., Dubow, E., & Ippolito, M. (2000). Developmental and cross-situational differences in adolescents' coping strategies. *Journal of Youth and Adolescence*, 29, 183-204.
- Grønning, K., Espnes, G. A., Nguyen, C., Ferreira, A. M., Gregorio, M. J., Sousa, R., et al. (2018). Psychological distress in elderly people is associated with diet, wellbeing, health status, social support and physical functioning-A HUNT3 study. *BMC Geriatr*, 18, 205.
- Halliwell, E., & Dittmar, H. (2003). A qualitative investigation of women's and men's body image concerns and their attitudes toward aging. *Sex Roles*, 49, 675-684.
- Holden, C. (2005). Sex and the suffering brain. *Science*, 308, 1574.
- Hyde, J. S., & Frost, L. A. (2004). Metaanalizy w psychologii kobiet. (Meta-analyses in female psychology). In: Wojciszke, B. (Eds), *Kobiety i mężczyźni: odmienne spojrzenia na różnice* (pp. 15-47). Gdańsk: GWP.
- Jakupak, M., Lisak, D., & Roemer, L. (2002). The role of masculine ideology and masculine gender role stress in men's perpetration of relationship violence. *Psychology of Men & Masculinity*, 3, 97-106.
- Kajantie, E., & Phillips, D. I. (2006). The effects of sex and hormonal status on the physiological response to acute psychosocial stress. *Psychoneuroendocrinology*, 31, 151-178.
- King, B. M., & Minium, E. W. (2009). *Statystyka dla psychologów i pedagogów*. (Statistics for psychologists and educators). Warszawa: PWN.
- Kłodecka-Różalska, J., & Kownacka, I. (2005). Stereotypy płci i motywacja osiągnięć młodzieży uprawiających sporty walki. (Gender stereotypes and motivation of the achievements of young people practicing combat sports). *Sport Wyczynowy*, 11-12, 23-31.
- Krane, V., Choi, P. Y. L., Baird, S. M., Aimar, C. M., & Kauer, K. J. (2004). Living the paradox: Female athletes negotiate femininity and muscularity. *Sex Roles*, 50, 315-329.
- Krieger, N. (2003). Genders, sexes, and health: what are the connections – and why does it matter? *International Journal of Epidemiology*, 32, 652-657.
- Kuczyńska, A. (1992). *Inwentarz do oceny płci psychologicznej. Podręcznik*. (The Inventory for Assessing Psychological Sex. Handbook). Warszawa: PTP.
- Kudielka, B. M., & Kirschbaum, C. (2005). Sex differences in HPA axis responses to stress: a review. *Biological Psychology*, 69(1), 113-132.

- Kumari, N. (2011). Personal therapy as a mandatory requirement for counselling psychologists in training: A qualitative study of the impact of therapy on trainees' personal and professional development. *Counselling Psychology Quarterly*, 24(3), 3211-232.
- Lundberg, U. (2005). Stress hormones in health and illness: the roles of work and gender. *Psychoneuroendocrinology*, 30, 1017-1021.
- Mandal, E., & Zalewska, K. (2010). Psychiczna kobiecość i męskość, poczucie własnej atrakcyjności, style przywiązania, style radzenia sobie i strategie autoprezentacji u kobiet podejmujących próby samobójcze. (Mental femininity and masculinity, self-esteem, attachment styles, coping styles and self-presentation strategies in women attempting suicide). *Psychiatria Polska*, XLIV, 329-339.
- Marchand, A., Drapeau, A., & Beaulieu-Prévost, D. (2011). Psychological distress in Canada: The role of employment and reasons of non-employment. *Int. J. Soc. Psychiatry*, 58, 506-604.
- Martz, D., Handley, K., & Eisler, R. (1995). The relationship between feminine gender role stress, body image, and eating disorders. *Psychology of Women Quarterly*, 19, 493-508.
- Matteo, S. (1986). The effect of sex and gender-schematic processing on sport participation. *Sex Roles*, 15, 417-432.
- Matud, M. P., Bethencourt, J. M., & Ibáñez, I. (2015). Gender differences in psychological distress in Spain. *Int. J. Soc. Psychiatry*, 61, 560-568.
- Matud, M. P., & García, M. C. (2019). Psychological Distress and Social Functioning in Elderly Spanish People: A Gender Analysis. *Int. J. Environ. Res. Public Health*, 16, 341.
- Ngun, T. C., Ghahramani, N., Sánchez, F. J., Bocklandt, S., & Vilain, E. (2011). The genetics of sex differences in brain and behavior. *Frontiers of Neuroendocrinology*, 32(2), 227-246.
- Nurullah, A. (2010). Gender differences in distress: The mediating influence of life stressors and psychological resources. *Asian Soc. Sci*, 6, 27-35.
- Pearlin, L. I. (1989). The sociological study of stress. *Journal of Health and Social Behavior*, 30(3), 241-256.
- Perkins, J. M., Lee H., James, K. S., Oh, J., Krishna, A., Heo, J., et al. (2016). Marital status, widowhood duration, gender and health outcomes: A cross-sectional study among older adults in India. *BMC Public Health*, 16, 1032.
- Pfau, M. L., Purushothaman, I., Feng, J., Golden, S. A., Aleyasin, H., Lorsch, Z. S., et al. (2016). Integrative analysis of sex-specific microRNA networks following stress in Mouse Nucleus Accumbens. *Front Molec Neurosci*, 9, 144.
- Radziminski, L., Rompa, P., Barnat, W., Dargiewicz, R., & Jastrzebski, Z. (2013). A Comparison of the Physiological and Technical Effects of High-Intensity Running and Small-Sided Games in Young Soccer Players. *Int. J. Sports Sci. Coach*, 8, 455-465.
- Rudman, L. A., & Glick, P. (2008). *The social psychology of gender*. New York: The Guilford Press.
- Russo, N. F., & Green, B. L. (2004). Kobiety a zdrowie psychiczne. (Women and mental health). In: Wojciszke, B. (Eds) *Kobiety i mężczyźni: odmienne spojrzenia na różnice* (pp. 302-353). Gdańsk: GWP.
- Shimonaka, Y., Nakazato, K., Kawaai, C., & Sato, S. (1997). Androgyny and successful adaptation across the life span among Japanese adults. *The Journal of Genetic Psychology*, 158, 439-400.
- Soroka, A., & Bergier, J. (2011). Poczucie tożsamości płciowej kobiet uprawiających piłkę nożną z uwzględnieniem formacji. (Sense of gender identity of women playing football including formation). *Sport i Turystyka*, 1, 45-58.
- Starzomska, M., & Kowalczyk, A. (2012). Płeć psychologiczna sportowców w świetle wyników badań własnych. (Psychological gender of athletes in the light of research results). *Fides Et Ratio. Kwartalnik Naukowy Towarzystwa Uniwersyteckiego Fides Et Ratio. Problematyka Kobiecości*, 4(12), 127-139.
- Strelau, J., Jaworowska, A., Wrześniewski, K., & Szczepaniak, P. (2007). *Kwestionariusz Radzenia Sobie w Sytuacjach Stresowych. CISS. Podręcznik*. (The Coping Inventory for Stressful Situations. CISS. Handbook). Warszawa: PTP.
- Tran, A. G. T. T., Lam, C. K., & Legg, E. (2018). Financial Stress, Social Supports, Gender, and Anxiety During College: A Stress-Buffering Perspective. *The Counseling Psychologist*, 46(7), 846-869.
- Ugucioni, S.M., & Ballantyne, R. H. (1980). Comparison of attitudes and sex roles for female athletic participants and nonparticipants. *International Journal of Sport Psychology*, 11, 42.
- Whitley, B. E. (1984). Sex role orientation and psychological well-being. Two meta-analyses. *Sex Roles*, 12, 207-225.
- Williams, J. E., & Best, D. L. (1990). *Measuring sex stereotypes: a multination study*. Beverly Hills: Sage Publications.
- Williams, K., & McGillicuddy-De Lisi, A. (2000). Coping strategies in adolescents. *Journal of Applied Developmental Psychology*, 20, 537-549.