

# Body Image Issues in Lithuanian Magazines Aimed for Children and Adolescents in Relation to Body Mass Index and Body Size Perception of 16-19 Y. Old Girls During the Last 15 Years

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## ABSTRACT

*Mass media plays an important role in forming body image and makes the significant impact on body size perception in children and adolescents. The aim of present study was to reveal trends in depiction of body image cues in Lithuanian magazines aimed for children and adolescents in relation to changes of real body mass index (BMI) and body size perception of 16-19 y. old girls in the year 2000 and the 2015. Three popular journals published both in the year 2000 and the 2015, were chosen for in-depth analysis of their contents (the periodicity of different topics was counted and compared). Attention given to a healthy body image has increased and the promotion of especially skinny females' body has decreased during the last 15 years from the dominant type in the year 2000 to depiction of slightly thin or normal body build in the 2015. However, the real BMI of 16-19 y. old Lithuanian girls has significantly increased during the 2000-2015 period (from 20.09 till 21.32 kg/m<sup>2</sup>; p<0,001). Despite this fact, the older adolescent girls were more satisfied with their own body size and shape in the year 2015 than in the 2000. The present study showed that changing depictions of body image issues in mass media (magazines aimed for adolescent girls) were in parallel with the proper self-esteem of body size in adolescent girls.*

**Key words:** body image, body perception, body mass index, magazines, adolescent girls

## Introduction

Body image is a multidimensional construct broadly describing internal, subjective representations of physical appearance and bodily experience, our attitude towards body, in particular, size, shape and aesthetics<sup>1,2</sup>. Body image includes perceptual, cognitive and affective elements of how we internally perceive our own bodies, and the bodies of the others<sup>3</sup>. Our own bodies (»self«) have both an anthropometric representation of the body size (height, weight, body shape, etc.) and a perceptual, cognitive and affective reflexions<sup>4</sup>.

During the last decades, the »ideal« females' body was getting slimmer, despite the dramatic increase in prevalence of overweight and obesity among children and adolescents<sup>1,3,5</sup>. Besides, fatness phobia, body dissatisfaction, unhealthy weight control and eating disorders were com-

mon problems among young adolescents not only in Western, but also in the other countries<sup>6-11</sup>.

On the other hand, standards of beauty were always changing, and, furthermore, the perception of »ideal« body size has been always dependent on the interaction between many factors – geographic, cultural, social, economic and family related circumstances, also – on peer's pressure and mass media<sup>10,12-14</sup>. Nowadays, children and adolescents grow overwhelmed by information from television, movies, magazines, music, advertisements, fashion shows – that is easily accessible via boosting internet communication and wide-spread smart phone usage as well. Hence, globalization of the cues related to body image is speedily spreading over the world today, and the influence of such contributors as social networking and mass media are extremely important, in particular, to form the opinion about »ideal« body size and shape in adolescents<sup>11,15-20</sup>. Pu-

berty is the period of extreme body changes, and adolescent girls are very sensitive to societal pressure to be thin – that leads to body dissatisfaction, low self-esteem, unhealthy dieting, eating disorders, anxiety, depression and provokes other psychological disturbances<sup>8,9,14,16,18,21</sup>.

Around the 1995-2000 period, in Lithuania, as in many other countries, unrealistically thin body became a symbol of success for young girls, and that was very often discussed in different mass media, especially, in journals aimed for adolescent girls<sup>22,23</sup>. Nevertheless, during the last decade in Lithuania the respectable mass communication very often proclaimed healthy body image also – solid arguments and reasoned opinion about healthy body size and body dissatisfaction related dangers were often elucidated by psychologists, pediatricians, auxologists and psychiatrists as well. Positive body image may confer benefit and operate similarly across the range of populations, although it might be expressed uniquely in different contexts and contribute to a more complete account of positive body image<sup>2</sup>.

However, there is a lack of comparative studies on the content and topics related to body image cues at the Lithuanian journals aimed for children and adolescents. In addition, it is not clear if depiction of specific body size and shape items in mass media might be in parallel to peculiarities of real body image issues in adolescent Lithuanian girls. The aim of present study was to reveal trends in depiction of body image cues in Lithuanian magazines aimed for children and adolescents in relation to changes of real body mass index (BMI) and body size perception of 16-19 y. old girls in the year 2000 and the 2015.

## Material and methods

Firstly, to reveal trends in depiction of body image cues in magazines aimed for children and adolescents, three popular journals (*Naminukas*, *Mergaite*, *Panele*), issued both in the year 2000 and the 2015, were chosen for in-depth analysis of their contents and topics. Each magazine has been released monthly – in total 72 volumes had been analyzed. All the topics were classified according to the subject-matter depiction:

- body size or shape depiction (additional analysis was applied to reveal which body build was idealized – skinny, normal or plump body shape),
- body care,
- fashion,
- nutrition (in general, different diets, recipes),
- sports activity (as lifestyle or exercises for getting in shape),
- health promoting education (healthy lifestyle advices),
- people's stories,
- peers and relationships,
- hobbies (such as leisure time pursuits, handcrafts),
- other topics (horoscopes, crosswords, jokes).

The periodicity (the incidence) of each topic was counted (in %), and the prevalence of each topic in the year 2000 and the 2015 was compared.

Secondly, to evaluate the changes in real body mass index (BMI) and self-esteem of body size in adolescent Lithuanian girls, the results of two studies, carried out in the year 2000 and the 2015 were compared. The girls of 16-19 y. of age were investigated in 5 biggest towns of Lithuania, including the capital (Vilnius city). Sample size consisted of 1405 girls in the year 2000 and 308 girls in the year 2015. Standard anthropometric methods were used for body size measurements<sup>4</sup>. The answers from self-administered questionnaire were analyzed to evaluate the perception of body size.

Data on height and weight, also body mass index were analysed, and the results from both studies were compared. The real body size of each girl was classified according to the BMI (weight/height<sup>2</sup>). All the girls were grouped into three groups using the cut-off points suggested by T. Cole *et al.* (2000, 2007)<sup>24,25</sup>: the cut-off points, which at the age of 18 years corresponded the BMI value of 25.0, were used for defining the overweight, and those that corresponded the BMI value of 18.5 served for defining the underweight (the normal weight was considered in between these cut-off points).

The following body image related answers were analyzed from self administered questionnaires (both in the year 2000 and the 2015):

- Are you satisfied with your current weight: 1) yes, 2) no;
- Do you think you are: 1) too thin, 2) thin, 3) just right, 4) overweight, 5) obese (for the further analysis the answers 1 and 2, also 4 and 5 were summed up, and finally three groups of body size self-esteem were composed).

The data were computed using the standard programs of statistical packages (EXCEL, SPSS 22.00). The statistical significance of the differences between BMI data was determined using Student's *t* test; the differences between the prevalence or incidence of various topics at the magazines, also between the answers concerning body size and shape perception were evaluated using chi-square test<sup>26</sup>.

## Results

Body image issues in Lithuanian magazines aimed for children and adolescents, published in the year 2000 and the 2015

Magazine »Naminukas« (Figure 1) dedicated to boys and girls, approximately of 7-14 y. of age, was focusing on crosswords and puzzles, both in the year 2000 and the 2015 (61.6% and 55.1% – respectively), but no significant attention was allowed to body image in former and recent years ( $p > 0.05$ ). Whereas »Mergaite« (Figure 2), the magazine for 7-13 years old girls, mostly covered such topics as hobbies, people's stories and the other (horoscopes, puzzles, jokes) topics in the year 2000 (22.1-29.8%) and the 2015 (16.1-26.5%). Moreover, attention towards healthy body image and body care increased from 3.7% to 15.7% from the year 2000 up to the year 2015 ( $p < 0.05$ ). Magazine »Panel« (Figure 3), mostly orientated to adolescent

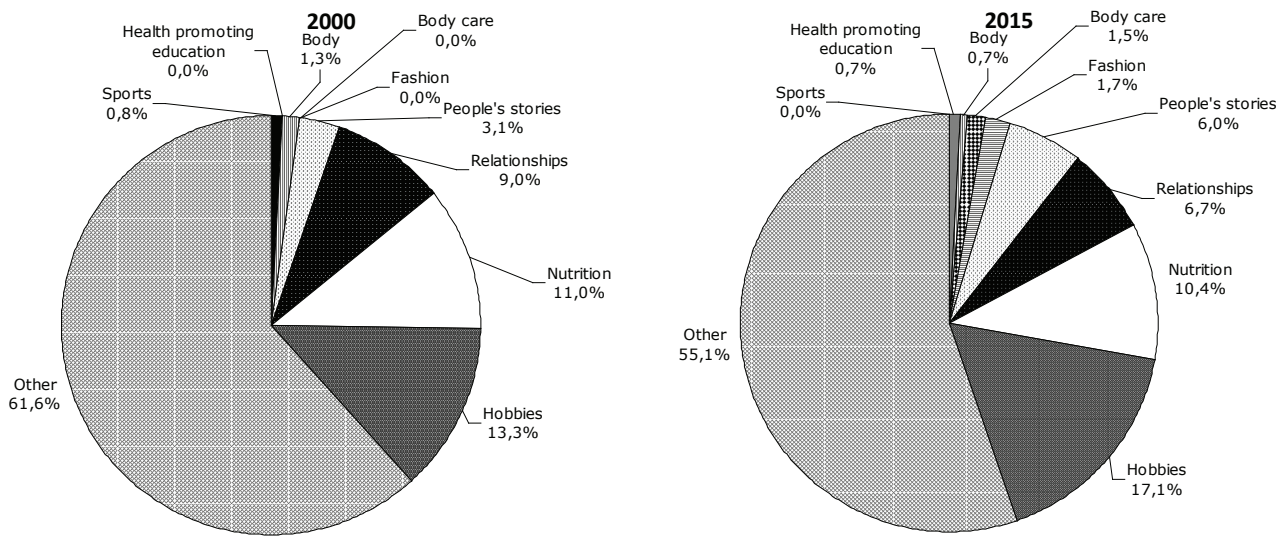


Fig. 1. The periodicity of different topics at the magazine „Naminukas”, published in the year 2000 and the 2015.

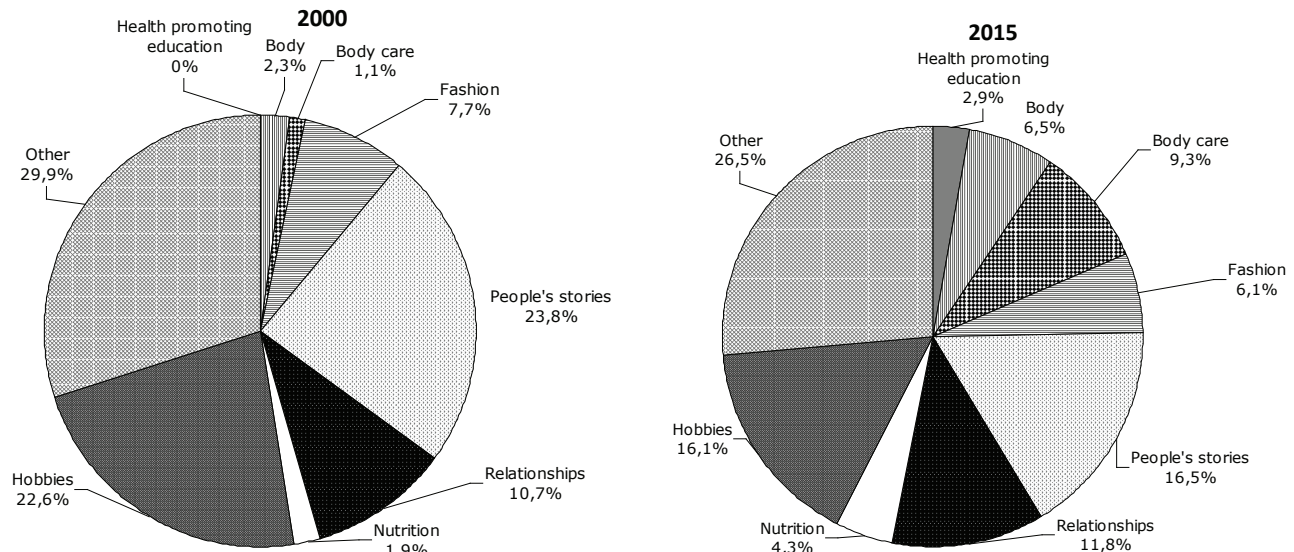


Fig. 2. The periodicity of different topics at the magazine „Mergaitė”, published in the year 2000 and the 2015.

girls, wrote about body size and shape more often: in the year 2000 – body image issues covered 22.1% (body care – 15.6%), in the year 2015 – 15% (body care – 18%). From all the »Panele« articles related to body image (Figure 4), attention to woman’s skinny body shape in 15 years decreased from 70.1% to 39.7% ( $p < 0.001$ ), depiction of normal and plump images increased from the year 2000 up to the year 2015 as follows: from 20.7% to 39.6% and from 9.2% to 20.7% – respectively ( $p < 0.05$ ).

Changes in the real BMI and body size perception of 16-19 y. old Lithuanian girls during the last 15 years

The BMI of 16-19 y. old Lithuanian girls has evidently increased during the 2000-2015 period (Figure 5): on average – from 20.09 till 21.32 kg/m<sup>2</sup> ( $p < 0.001$ ). Despite this fact, the older adolescent girls, in general, were more sat-

isfied with their own body size and shape in the year 2015 than in the 2000: being relatively slim in the year 2000, even 80.2% of girls wished to have less weight, 17.6% – were satisfied with their body size and only 2.2% of girl wanted to gain more weight; being more stout in the year 2015, only 55.2% of girls wanted to be slimmer, 39.4% – to have the same weight and even 5.4% of girls wanted to gain more weight in the year 2015 (the differences between the corresponding answers in both studies were statistically significant;  $p < 0.001$ ).

With respect to their actual BMI, nearly all overweight girls in the year 2000 and less than 60% of girls in the year 2015 evaluated themselves as being thick, while close to 40% of girls from this group rated their bodies as normal size in the year 2015 ( $p < 0.001$ ) (Figure 6). As for

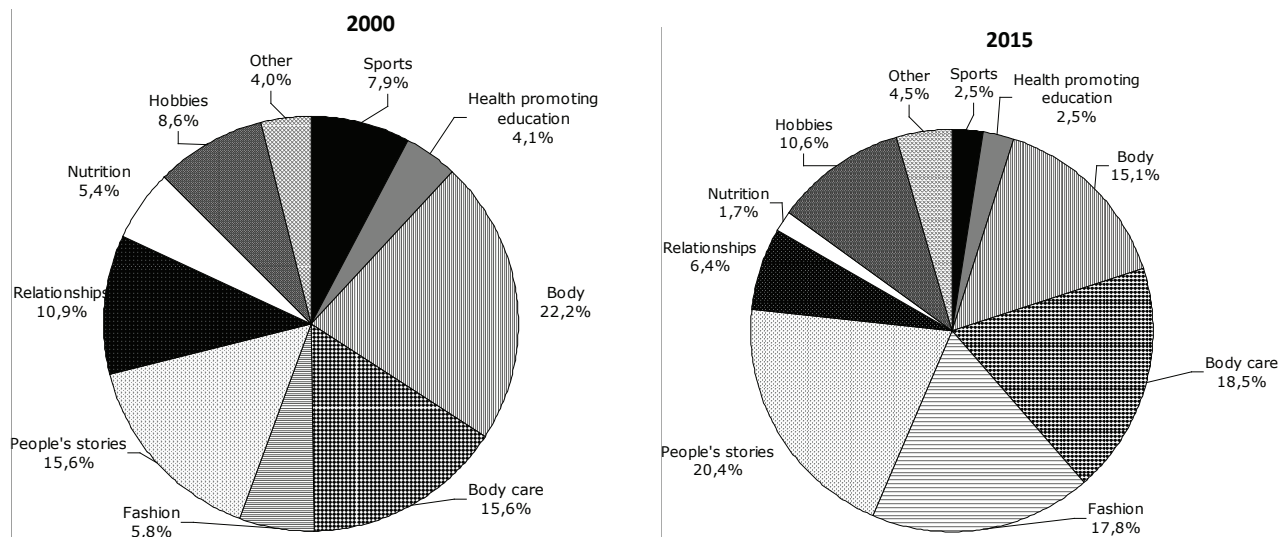


Fig. 3. The periodicity of different topics at the magazine „Panele”, published in the year 2000 and the 2015.

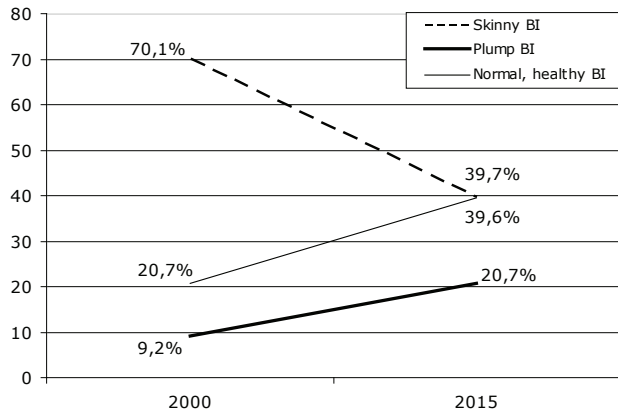
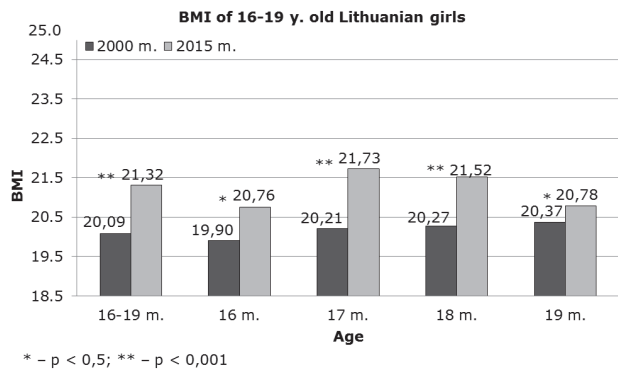


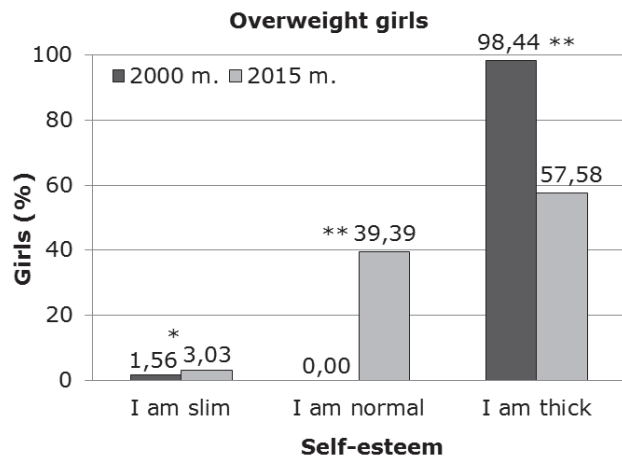
Fig. 4. The incidence of depictions of different body size at the magazine „Panele”, published in the year 2000 and the 2015.



\* -  $p < 0,5$ ; \*\* -  $p < 0,001$

Fig. 5. The BMI of 16-19 y. old Lithuanian girls in the year 2000 and the 2015.

normal weight girls (according to their real BMI), more than 30% of the girls in the year 2000 and less than 20% in the year 2015 rated themselves as too thick, besides,



\* -  $p < 0,5$ ; \*\* -  $p < 0,001$

Fig. 6. The self-esteem of body size in overweight Lithuanian girls of 16-19 y. of age in the year 2000 and the 2015.

much more girls from this group estimated their body size as normal one in the year 2015 than in the year 2000 (Figure 7). We have found less statistically significant differences between the self-esteem of body size in really underweight girls: lean girls more often thought that they had normal body size in the year 2015 than in the year 2000 – 68% versus 59%, respectively (Figure 8). On the other hand, no one girl from this group in the year 2015 rated her body as the thick one, while more than 3% of really lean girls in the year 2000 indicated themselves as being thick.

## Discussion and conclusions

Magazine »Naminukas« mostly provided the topics related to leisure time challenges and ideas (no significant attention to body image had been allowed both in the year

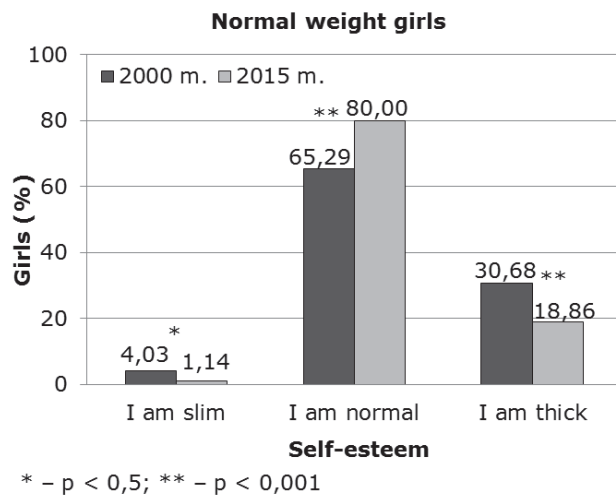


Fig. 7. The self-esteem of body size in normal Lithuanian girls of 16-19 y. of age in the year 2000 and the 2015.

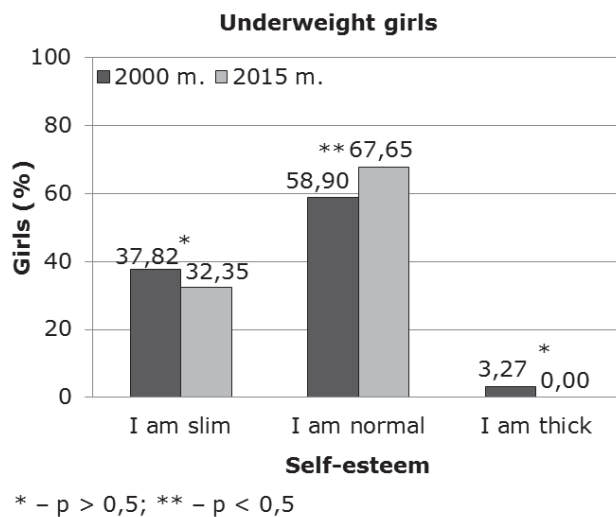


Fig. 8. The self-esteem of body size in underweight Lithuanian girls of 16-19 y. of age in the year 2000 and the 2015.

2000 and the 2015). Magazine »Mergaitė« wrote about hobbies and various stories, but the attention to healthy body image has increased during the last 15 years. Journal »Panek« more often than the other magazines wrote about the different body image issues, however, attention to very skinny woman's body decreased during the last 15 years from dominant type in the year 2000 to slightly lean or normal body build in the year 2015.

The analysis of body weight of 16-19 y. old girls showed the evident increase in the BMI during the last 15 years,

and this phenomenon has been in line with the results of many other studies from different countries which had experienced growing trends in overweight and obesity during the last decades<sup>5</sup>. It might be stated that adolescent Lithuanian girls, having been one of the thinnest among the peers from many other countries around the year 2000<sup>27</sup>, recently have much bigger BMI and are getting closer to peers from Western countries.

Despite this trend, our study have revealed the opposite tendency in self-esteem of body size among young females nowadays – their opinion and self-esteem of body size became more positive and more objective in relation to their actual BMI. The present study showed, that changing depictions of body image issues in mass media (magazines aimed for adolescent girls) were in parallel with the proper self-esteem of body size in adolescent girls. However, underweight girls remain very problematic in terms to their own body image, and the present study revealed having them slightly more distorted body size perception recently than in the 2000 study. The other authors also argue that lean girls very often have more vulnerable psychological status<sup>1,2</sup>, but it remains unclear, if lean girls more often are prone to have body dissatisfaction and eating disorders, or they become severe underweight because of their lower self-esteem, higher body dissatisfaction and fatness phobia.

Although traditional media (magazines and television) are still widely used, there are other forms of freely accessible information, in particular, the increasing usage of different Internet sources. Since the year 2000, the usage of Internet has been increasing by about 50% each year<sup>28</sup>. In the year 2015, it was estimated that the Internet was used by 75.6% of Lithuanian population<sup>29</sup>. What is more, image-focused websites (related to fashion, beauty, celebrities and entertainments) are currently more popular among young women than are the fashion magazines<sup>16</sup>. Many Internet websites propagate the stereotypical ideals of feminine beauty. For example, studies on high school girls have found that Internet usage was related to a greater weight dissatisfaction and drive for thinness<sup>15,17</sup>. Even though Lithuanian magazines have slightly changed their beauty standards over the last 15 year, the Internet might play even bigger role in forming body image cues. It is not exactly clear how Internet might influence body image of adolescent girls with different BMI and vulnerable psychological status. That's why further studies on the Internet usage in relation to body concerns and dissatisfaction among adolescents are needed to reveal a possible risk for negative influence on general health and psychological status. It would be interesting to investigate real body size and shape of young teenagers and children in relation to their body image, body perception and psychological well-being (body dissatisfaction, self-esteem, eating disorders, anxiety, depression) as well.



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## PITANJA SLIKE TIJELA U LITVANSKIM ČASOPISIMA NAMIJENJENIM DJECI I MLADEŽI U ODNOSU NA INDEKS TJELESNE MASE I PERCEPCIJU VELIČINE TIJELA KOD DJEVOJAKA U STAROSTI 16-19 GODINA U POSLJEDNJIH 15 GODINA

### SAŽETAK

Masovni mediji igraju važnu ulogu u formiranju slike tijela i čini značajan utjecaj na percepciju veličine tijela kod djece i adolescenata. Cilj ovog istraživanja bio je otkriti trendove u prikazu slika tijela u litvanskim časopisima namijenjena za djecu i mladež u odnosu na promjene indeksa tjelesne mase (BMI) i percepcije veličine tijela od 16-19 god. starih djevojke u 2000. i 2015. godini. Tri popularna časopisa, kako u 2000. godini i 2015. godine, izabrani su za dubinsku analizu njihovih sadržaja (periodičnost različitih tema je bio izbrojan i uspoređen). Pozornost posvećena zdravom slika tijela je povećan i promicanje tijelo posebno mršavih žena se smanjila tijekom posljednjih 15 godina od dominantnog tipa u 2000. godini na prikazu malo tanke ili normalne tjelesne građe u 2015. Međutim, pravi BMI 16-19 god. stare litvanski djevojke značajno je porastao u razdoblju 2000-2015 (od 20.09 razdoblju do 21.32 kg / m<sup>2</sup>; p < 0.001). Unatoč toj činjenici, starije djevojke su bili zadovoljnije vlastitim veličinama i obliku tijela u 2015. godini u odnosu na 2000. Ova studija je pokazala da mijenjaju prikaze slika tijela pitanjima u masovnim medijima (tisak namijenjen adolescentica) bili su u paralelno s pravom samopoštovanje veličini tijela u adolescentica.