Marketing in the area of raising awareness of childhood obesity risks

Master thesis

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Obor Management sportu

Brno, 2018
Statutory declaration

Herewith I declare that I have written my master thesis by myself under supervision of Mgr. Dagmar Heiland Trávníková, Ph.D., all sources and data used are quoted in the list of references and the principles of scientific ethics were abided.

In Brno 02.05.2018

________________________________________
Signature
Acknowledgment

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<thead>
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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>BMI</td>
<td>Body Mass Index</td>
</tr>
<tr>
<td>EUROSTAT</td>
<td>Statistical office of the European Commission</td>
</tr>
<tr>
<td>NCDs</td>
<td>Non-communicable diseases</td>
</tr>
<tr>
<td>NIH</td>
<td>National Institute of Health</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>SI</td>
<td>International System of Units</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WHR</td>
<td>Waist to hip ratio</td>
</tr>
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</table>
1 INTRODUCTION

One of the most discussed topics of recent year is childhood obesity. This social problem has grown into a global issue which society tries to fight against. The onslaught of this disease is so large that the society ceases to be able to face it.

Thirty years ago, the main spoken issue was childhood malnutrition. Many rescue packages were created and a large number of missions were undertaken to help children suffering from weight below the healthy level. These individuals were more susceptible to illness and it could then spread throughout the world. Three decades later, the world is facing quite a different problem and that is childhood obesity. It is slowly but surely spreading to developing countries.

Obesity is not a virus or a bacterium that we could get infected by in the streets or by a physical contact with another person. The origin of obesity is mainly a matter of the individual's psyche and lifestyle. Its gradation is related to underestimation of the severity of this disease. Obesity treatment is a difficult process. It cannot be cured by any drugs or medication. It primarily requires the determination of the individual and their will.

Therefore, it is necessary to place great emphasis on the prevention of this disease from a very early age of the child. Many experts even claim that the beginnings of obesity may occur already during the prenatal period. That is why the gynaecologists and then the paediatricians play a big role. However, the parents and the grandparents will always play the main role in child obesity. They are those who care about the child’s development, their daily routine and lifestyle, and sufficient amount of movement and exercise. The big question that should be answered by the research is how well the parents are doing in terms of meeting the above-mentioned criteria.

Scientists call today's environment obesogenic. The creation of the obesogenic environment is not a matter of a few years, it has been forming for decades and it is graduating over time. One of the reason is laziness of our society. Rapid technology development plays a significant role because it greatly simplifies our lives. Nowadays, people can arrange a lot of things from the comfort of their homes, e.g. thanks to the Internet. Children do not see anything tempting in outdoors activities and playing football with friends in the park can often times be replaced by playing computer games. This environment is created by people themselves and causes considerable difficulties not only for individuals but for the whole societal system.
About 10-15% of the Czech Republic healthcare funds are spent on treatments related to obesity. According to the famous Czech obesitologist Dr. Marinov (2017), there will be multiples of individuals treated with obesity in less than 30 years. Therefore, many more funds will be needed to treat this disease. However, our society is not prepared for this situation. The healthcare will not be able to take as many patients with diseases that are the result of obesity due to financial and capacity reasons. This information brings me to the question of whether our society is well acquainted with this disease, whether it is aware of what the disease is causing now and what consequences may appear in the future if we keep ignoring it.
2 CHILDHOOD OBESITY

Obesity is a serious health problem of current population. In the developed countries percentages of people suffering from the obesity is mostly more than 60%. According to data from World Health Organisation (2018) (hereinafter referred to as WHO) the number of obese people of the WHO European Region has been nearly tripled since 1975. There were 39% of people older 18 years suffering from overweight in 2016. 13% of those adults were obese. Speaking about children under the age of 5, there were 41 million overweight or obese children in 2016. The same year, there were founded 340 million of obese children and adolescents (age 5 - 19 years). This number is alarming for many governments. They create new programs focused on fight against obesity, pay big money on researches and treatments. Since the time organisations focusing on reducing obesity, the disease still has the increasing character (WHO, 2018).

Despite all the data and facts, the number of people suffering from this disease is still rising. It is important to realize that obesity is preventable. Methods and suggestions, new programs are being created (for example by WHO), that help us to prevent the current obesity epidemic.

If the population do not begin with prevention of obesity in childhood they will have to deal with even worse health and social problems in adulthood. The Chapter 2.4 “Causes of obesity” will introduce deeply reasons leading to overweight and weight gaining.

2.1 Determination of childhood

The term childhood is given in many literatures differently. Generally, the childhood is an age period from birth to adolescence. Hainer (1997) defined in his writings the childhood obesity for children in an age bracket from 5 to 17 years old. Neither Organisation for Economic Co-operation and Development (hereinafter referred to as OECD) use a stable age category for its researches. A lot of science books concerned with obesity mention that the beginning of childhood obesity and subsequently adulthood obesity could begin already during pregnancy. For purposes of this work is necessary defines age stages of childhood. Since the birth till the time of maturing. Lanz (2017) determines the first stage of living as an age between the birth till 1st year of baby. After infant stage begins a toddler period. This developing period includes learning of walking, running, feeding self, but also nutrition recognizing. Some authors class among toddler
and school age groups also preschool (3-5 years old) time. School age is according to Lanz (2017) development since 6th year of child. After school age start the phase of autonomous adolescence. In the late of the last part the childhood period ends and adulthood begins to be formed. Table 1 shows division of age stages.

<table>
<thead>
<tr>
<th>Age stages</th>
<th>Age group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant</td>
<td>0 – 1</td>
</tr>
<tr>
<td>Toddler</td>
<td>1 – 2</td>
</tr>
<tr>
<td>Preschool</td>
<td>3 – 5</td>
</tr>
<tr>
<td>School age</td>
<td>6 – 12</td>
</tr>
<tr>
<td>Adolescent</td>
<td>12 – 18</td>
</tr>
</tbody>
</table>

*Table 1: Age stages of childhood*  
*Source: Lanz, 2017*

The school age is in some sources divided into two other groups. The younger one, which includes children from 6 to 8 years. And the older school age where are ranked children aged 9 to 12 years (Youngdahl, 2018).

2.2 Overweight and Obesity

Overweight and subsequently obesity is the result of improper nutrition. A person receives more energy than is able to deliver, and this energy is stored in the form of fat (Grofová, 2007). According to Katzmarzyk (2010) the terms overweight and obesity are distinguished by various conditions. As a significant indicator is considered level of risk of morbidity and mortality. People with higher level of the disability are more likely to die or have more severe health consequences. Another difference could be seen in chance to slim down. “...positive energy balance has been more pronounced and has been sustained for a longer period of time in the obese than in the overweight” (Katzmarzyk, 2010 p. 4). People suffering from obesity have less chance to lose their weight than overweight people. They also require more energy to be able to move a bigger mass. Generally, people who leave their weight on the threshold of obesity dealing with many social and mainly health problems (non-communicable diseases – NCDs).

Obesity has been found as a psychological or/and physical problem. There is significantly increases risk of various diseases reported by Eurostat (2014) such as cardiovascular problems, diabetes, coronary heart diseases, hypertension and cancers. These problems
could be seen in adults as in children ages. The consequences of child obesity will be more discussed in an individual chapter.

According to Mr. Behrman: “Obesity in childhood is not a disease but rather a symptom-complex having a weak association with adult obesity with its correlates of increased mortality, cardiovascular disease, hypertension, liver disease, cholelithiasis, and adult-on-set diabetes” (Behrman, 2001 p. 110).

Obesity is an accumulation of fat in a body. Up to 3rd year a child obesity is defined as weight over 90 percentile ratios of weight to height. An obesity for older 3 years is stated as weight which goes beyond the 95 percentiles. In gender division the obesity is classified by exceeding of 25% of fat in boy’s body and 32% by girl’s ones (Bayer, 2011).

2.3 Methods of weight assessment

There have been created many methods used for measuring the amount of fat in the body. This chapter describes some of them.

2.3.1 Waist to hip ratio

One of the easiest measured method is Waist to hip ratio (WHR). WHR is measured as a proportion of circumference of waist to hip.

\[
WHR = \frac{\text{waist}}{\text{hip}} \quad (cm)
\]

“A ratio of more than 0.8 for women and 1 for men is also associated with high risk for cardiovascular events” (Mahan, 2017 p. 390). Table 2 shows rate of health risks for men and women.

<table>
<thead>
<tr>
<th></th>
<th>Health risks</th>
<th>I - - - - - - - - - &gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Men</strong></td>
<td>gynoid</td>
<td>&lt; 1.00 &gt;</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>gynoid</td>
<td>&lt; 0.85 &gt;</td>
</tr>
</tbody>
</table>

Table 2: Health risks related to WHR
Source: Mahan, 2017

In the Figure 1 are pictured two types of obesity shape. The first one is called visceral or android type. It is typical for muscular type. The fat is mostly accumulated in the part of
chest and abdomen. The second picture – woman - is gynoid type of obesity, the body has pear shape. The fat is accumulated in buttock and thighs (Hainer, 2011).

![Figure 1: Type of obesity according to WHR](image)

Source: Hainer, 2011

2.3.2 Waist Circumference

According to the latest studies, the waist circumference is a more appropriate indicator of metabolic and cardiovascular risks than WHR (Hainer, 1997 p. 14). For comparison, the National Institute of Health (NIH) classify line of Body Mass Index (hereinafter referred to BMI) for overweight people as 25 and 30 or more for obese. “Waist circumference of more than 40 inches in men and more than 35 inches in women signifies increased risk, equivalent to a BMI of 25 to 34” (Mahan, 2017 p. 390). In the Table 3 could be seen the classification of Hainer (1997) for men and women health risks in SI units.

<table>
<thead>
<tr>
<th></th>
<th>Increased risk</th>
<th>High risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>➢ 94 cm</td>
<td>➢ 102 cm</td>
</tr>
<tr>
<td>Women</td>
<td>➢ 80 cm</td>
<td>➢ 88 cm</td>
</tr>
</tbody>
</table>

Table 3: Waist Circumference classification of metabolic and cardiovascular risk

Source: Hainer, 1997

2.3.3 Body fat distribution

Another appropriate method is determination of body composition - the percentage of muscle and fat mass in body. “Essential body fat is approximately 3% of body mass for men and 12% of body mass for women. Women are believed to have more essential body fat than men because of childbearing and hormonal functions. In general, the total body fat percentage (essential plus storage fat) is between 12% and 15% for young men and between 25% and 28% for young women” (Jeukendrup, 2010). This diagnostic measurement considers also gender, age and ethnicity of the population. As it can be seen
in the Table 4, there is significant different between limit for classification of obese man and woman.

<table>
<thead>
<tr>
<th>Males</th>
<th>Females</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-10</td>
<td>8-15</td>
<td>Athletic</td>
</tr>
<tr>
<td>11-14</td>
<td>16-23</td>
<td>Good</td>
</tr>
<tr>
<td>15-20</td>
<td>24-30</td>
<td>Acceptable</td>
</tr>
<tr>
<td>21-24</td>
<td>31-36</td>
<td>Acceptable</td>
</tr>
<tr>
<td>&gt;24</td>
<td>&gt;37</td>
<td>Overweight</td>
</tr>
</tbody>
</table>

*Table 4: Body fat percentages for males and females and their classification*

*Source: Jeukendrup, 2010*

### 2.3.4 BMI index

The most common used method for measuring fatness in the body is the BMI index. For example, the WHO creates its statistic based on the BMI. Overweight means person’s BMI is equal to or > 25. Obese person has BMI equal to or > 30. This method evaluates a total weight of an individual. It could be used both for adults and children. BMI index is well described by Mr. Hay: “BMI is the standard measure of obesity in adults and children. BMI is correlated with more accurate measure of body fatness and is calculated with readily available information: weight and height (kg/m$^2$). BMI between the 85th and 95th percentiles for age and sex identifies those who are overweight. Obese is defined as BMI at or above 95% and is associated with increased risk of secondary complications. Severe obesity is characterized by BMI for age and sex at or above the 99th percentile and is associated with greatly increased risk of comorbidity. An upward change in BMI percentiles in any range should prompt evaluation and possible treatment. An annual increase of more than 2 kg/m$^2$ is almost always an indicator of a rapid increase in body fat. For children younger than 2 years, weight for length greater than 95th percentile indicates overweight and warrant further assessment, especially of energy intake and feeding behaviour” (Hay, 2014 pp. 323,325).

This method closely correlates with body fat. Many studies employ BMI index to find out children obesity. Recommended values for adults (standard 20 to 25) are not relevant in childhood. Therefore, percentile charts were created for BMI. In childhood period is a body still in a developing progress. When counting the BMI index an age and sex of child has to be taken into consideration.
2.4 Causes of obesity

Factors involved in risk of increase overweight and obesity are multifactorial. The most extended cause is energy imbalance. This means that energy intake prevails over energy expenditure. Katzmarzyk (2010) determined four main groups related to excessive weight gain. As it can be seen in the Figure 2.

As factors in the built environment Katzmarzyk (2010) considers: “e.g. reliance on the automobile, building design, lack of safe sidewalks”. Among the social environment belong e.g. advertising, pressure to consume, or education. These factors also relate to a lack of supportive policies in given areas. Unfortunately, these factors are widespread in the world not only in developed countries but also in developing parts of the world. This is why the global environment has become “obesogenic”.

2.4.1 Eating habits

Hay (2014) defines a few eating habits as: “consumption of sugar-sweetened beverages, lack of family meals, large portion size, foods prepared outside the home, television
viewing, video gaming, poor sleep, and lack of activity”. Bad eating habits and an energy imbalance between calories consumed and calories expended are the most common causes of obesity. Imbalance in energy intake depends on the composition of the accepted food. In recent years, children tend to eat products with high amounts of fat and saccharide (chocolate, candy etc.). They have learned bad eating habits like fast eating (“the first is the king”), overeating (finishing all the food on their plate) or not eating at all (this causes different but serious diseases as well).

2.4.2 Lack of physical activity

Imbalance in energy expenditure is dependent on the decreases of physical activities during the day. A child spends more time watching TV and on computers, rather than playing some motion games. The child, therefore, has no chance to consume the energy contained in the consumed food. “A sedentary lifestyle in the absence of habitual physical inactivity also contributes to an increase in the prevalence of obesity. For example, physical education hours are being cancelled due to financial expense, in the USA. Some children watch television up to 20 hours per week, resulting decrease of physical activity. By increasing hours of physical activity may have positive effect on the decrease in BMI” (Hainerová, 2009 p. 32)

2.4.3 Genetic dispositions

Genetic dispositions and environment elements belong in other risk factors. “There are multiple risk factors for developing obesity, reflecting the complex relationships between genetic and environmental factors. Family history is a strong risk factor. If one parent is obese, the odds ratio is approximately 3 for obesity in adulthood, but if both parents are obese, the odds ratio increases to great than 10 compared to children with two nonobese parents” (Hay, 2014 p. 325). At least seven genes are known to lead to the development of prevalent obesity. These genes influence fat mass and its distribution, energy expenditure or hormone levels. The disease itself cannot be inherited, only susceptibility to this disease can be passed to offspring. Evidence of the disease is given by interaction between susceptibility and environment (increased food intake, decreased physical activity, stress) (Hainerová, 2009). In case of the possibility that children could inherit any of these genes, it is important to take preventative measures. Without these measures, there is a huge risk of persisting obesity in adulthood. The sooner the disability is solved, the higher the probability of preventing the spread of obesity. As Hainerová (2009) states
in her book, from preschool children suffering from obesity, “only” 26-41% remain obese in adulthood. However, the probability that obese school children remain obese in adulthood is significantly increased (about 42-63%).

2.4.4 Family influence

Family and socio-economic factors play a significant role in obesity. Generally, junk food is cheaper than the healthy option. There is a higher amount of poor obese people in Western countries. Products like cakes, pies and chips are cheaper than fruit and vegetables. As for the prices of products in the Czech Republic, it is more or less the same. It is a paradox that obese people are more likely to be rich than poor in the Czech Republic. As Fort (2004) states, one reason is the unlimited offer of products and also lifestyle. People prefer to eat in restaurants, have fast food or cold sandwiches instead of a homemade meal. Parents do not make time to prepare snacks for their children and just give them money to buy something (usually something sweet).

2.4.5 Commercial pressure

Children are the best target group for many food companies. They are not able to distinguish advertisements from other programs in TV. They might start to see differences from around their eight year. However, it does not mean they become resistant against it. Children react in different ways than adults. This is a reason why many of the most significant companies cooperate with child psychologists. Children mostly remember an advertisement due to its funny and catchy slogans, songs, animation, or magic. Thanks to watching those advertisements, children gain a taste for sweets, chocolates, chips etc. Afterwards they ask their parents for it, the parent yields and buys anything the child wants (Detiamedia, 2018).

2.5 Consequences of obesity

Obesity affects not only children’s health but also their social and emotional life.

Recently, obesity has become one of the primary health risks of developing countries. WHO (2017) defines it as a most prevalent disease, which can cause cardiovascular disease, insulin resistance, musculoskeletal disorders and various cancers. These maladies affect people mainly in adulthood. Nevertheless, a number of metabolic and cardiovascular complications are also manifesting at an early age as well (Hainer, 2011).
A list of medical conditions presented by Sahoo (2015) includes fatty liver disease, sleep apnoea, Type 2 diabetes, asthma, cardiovascular disease, high cholesterol, glucose intolerance and insulin resistance, skin conditions, impaired balance etc.

According to Hainer (2011), one of the most significant consequence of obesity on the global scale is Type 2 diabetes. A higher level of mortality, occurrence of cardiovascular illness, and/or physiological metabolism disruption are all associated with this type of diabetes.

“Obesity has been described as being one of the most stigmatizing and least socially acceptable conditions in childhood” (Sahoo, 2015). As a result of being overweight or obese, children face bullying, discrimination or social marginalization. These children are often set aside from collective activities, mainly from physical activities. They are slower than others and become out of breath much faster. These factors “contribute to low self-esteem, low self-confidence, and a negative body image in children and can also affect academic performance” (Sahoo, 2015). They hardly attend sport teams or any club, as a result of their lack of social interaction. These children would rather stay at home, play computer games and eat junk food for their comfort. This leads to uncontrollable weight gain.

2.6 Prevalence of obesity

Thirty years ago, many parts of the world were dealing with childhood malnutrition, international medical organisations were concentrated on infectious diseases. Today, the world is facing up to pandemic of obesity and related illnesses (NCDs).

In 2006, Andrew Prentice wrote a report for the International Journal of Epidemiology where the realised prediction of WHO is clearly shown. “WHO warns that the greater future burden of obesity and diabetes will affect developing countries, and the projected numbers of new cases of diabetes run into the hundreds of millions within the next 2 decades. The obesity pandemic originated in the US and crossed to Europe and the world’s other rich nations before, remarkably, it penetrated even the world’s poorest countries especially in their urban areas. The pandemic is transmitted through the vectors of subsidized agriculture and multinational companies providing cheap, highly refined fats, oils, and carbohydrates, labour-saving mechanized devices, affordable motorized transport, and the seductions of sedentary pastimes such as television” (Prentice, 2006).
In the year 2004, there were according to IOTF criteria (2015), approximately 10% of children aged 5-17 years suffering from overweight and 2-3% of them were obese in the world. Despite the prediction, the worldwide prevalence of the disease still has a rising character. Differences can constantly be seen between the different countries in the world, however, they are becoming fewer and fewer. Lately, the level of the world obesity is ranging between 5% to more than 30% (Federation, 2015).

2.6.1 Prevalence in the world

Two billion people in the world suffer from obesity or overweight (ČTK, 2017). This is nearly more than all living people on the American and European continents. In the last 40 years, the amount of obese people has rapidly increased. From 1975 to 2014, the number of obese people rose by more than 500 million. Of course, it has to be mentioned that the population grew largely in these years. In 1975, the world population was more than 4 billion people. In 2014, there were already more than 7 billion inhabitants on the planet. This means there was more than 7% growth of obese people in less than 40 years. According to a research made by professional journal *The Lancet*, there is also a noticeable growth in BMI average - from 21.7 to 24.2 in men and from 22.1 to 24.4 in women in the same time period (ČT24, 2016).

On the basis of research made by Nguyen and his colleague (2011), the lowest prevalence of obesity was found in India (1%). These data are from 2011. Chart 1 shows its position in 2015. Even in India can be seen increase in overweight adults. Worldwide, the areas most afflicted by obesity are the Pacific Islands, (up to 80% in some areas).

“The highest rate of obesity has been reported in the Pacific Islands and the lowest rates have been seen in Asia. The rates in Europe and North American are generally high, while the rates in Africa and Middle Eastern countries are variable” (Nguyen, 2011).

Based on the OECD (2017) report, we can say that in the worst positions are the United States, Mexico, New Zealand and Hungary. As can be seen in Chart 1, in the best positions are Japan and Korea.
The highest rate of childhood obesity has been in the US - up to 30. Europe is not far behind it, with approximately 20% of disabled individuals. Africa and Asia are the countries with the lowest rate of adult obesity and also child obesity too (Wang, 2006).

Statistics concerning children are nicely compiled by OECD. The highest rate of overweight or obese 15-year-old children live in the US (31%). On the other hand, the lowest rate of the OECD countries is Denmark - 10% (OECD, 2017).

OECD worked out an update for 2017 where they deeply analyse 3-17 years old in three different countries. They point out a rapidly rising rate of obesity in the US and England for both girls and boys. France has shown a quite stable rate up to 2012 (OECD, 2017). Chart 2 presents the process of change of the child obesity rate for these three countries.
In the EU Member States, over 22 million children are overweight of which 5 million are obese, with an annual increase of about 300,000 cases. In the next few years, no decrease is expected in this worldwide problem. In some parts of the world, there will be a steeper increase, as is assumed in the US, Mexico and in the UK.

2.6.2 Prevalence in the Czech Republic

The Czech Republic is not in a good condition in comparison with other countries. The latest OECD overview (2016) states a 7% growth of obese adults in 10 years (2000–2010). Figure 3 shows fat bodies. The smallest one with the lowest rate of obesity is Japan, the one with the highest rate of obesity is USA, in the middle a body such as our country, and a body which represent an average of obese people in OECD countries can be seen. Unfortunately, the figure that presents our state is closer to the fattest figure in the picture. It means that the Czech inhabitants are more obese than the average of OECD people.
Childhood obesity crossed pessimistic predictions in the Czech Republic. Each fourth child suffers from overweight, each seventh suffers from obesity. An occurrence is still rising in each of age group. Bayer (2011) states, that there live about 5-10% of obese children in the Czech Republic. We can say without hesitation that 98% of them deal with simple obesity caused by energy imbalance - an income exceeds an outcome. The rest 2% deals with different types of obesity.

There are about 154 000 children till the 16 years age who suffer from obesity. To primary schools entre just under ¼ of overweight and 10% of obese pupils. After nine years of compulsory school, 14% of those children finish as obese adolescent (Caterpillar, 2013).

As it can be seen in the Table 5 the most affected age category is older school age. Almost ¼ of the Czech children’s population of this age suffers from overweight. It is quite alarming indicator. Not so far behind is the category of younger school age with its nearly 11% obese ones. With lower range of age is also lower rate of disease. The tendency to obesity begins at an early age of the child as it can be seen from the table. A trigger could appear already during pregnancy which might be the reason of those 7% of overweight infants (Caterpillar, 2013).

<table>
<thead>
<tr>
<th>Age period</th>
<th>Overweight over 90% of BMI</th>
<th>Obesity over 97% of BMI</th>
<th>Underweight below 3% of BMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant</td>
<td>7.37</td>
<td>3.38</td>
<td>3.36</td>
</tr>
<tr>
<td>Toddler</td>
<td>9.72</td>
<td>3.55</td>
<td>4.27</td>
</tr>
<tr>
<td>Preschool</td>
<td>13.91</td>
<td>7.86</td>
<td>4.05</td>
</tr>
<tr>
<td><strong>Younger school age</strong></td>
<td><strong>20.86</strong></td>
<td><strong>10.75</strong></td>
<td><strong>2.83</strong></td>
</tr>
<tr>
<td>Older school age</td>
<td>24.2</td>
<td>13.29</td>
<td>2.15</td>
</tr>
<tr>
<td>Adolescence</td>
<td>22.07</td>
<td>12.4</td>
<td>1.52</td>
</tr>
<tr>
<td>Early adulthood</td>
<td>18.95</td>
<td>11.92</td>
<td>5.02</td>
</tr>
</tbody>
</table>

*Table 5: The occurrence of childhood obesity in CR 2009-2013*
*Source: Caterpillar, 2013*
3 SOCIAL MARKETING

„If we do not change our direction, we are likely to end up where we are headed”.

- Philip Kotler

If we are not going to change our attitude to bad things, habits or addictions, we can never be fully satisfied with our life.

Social marketing is trying to help people to realise causes and support the fight against them, such as the campaign “say no to drugs” or “exercise more and better” (Kotler, 2016).

The term ‘social marketing’ was firstly used by G.D. Wiebe in the year 1952. He brought up with question: “Why wouldn’t brotherhood and rational conduct be sold just as a soap?”, in his article “Merchandising Commodities and Citizenship on Television” (Bačuvčík, 2016 str. 84).

Social marketing received an accurate definition in 1971. Philipp Kotler and Zaltman defined social marketing as: “the design, implementation, and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution, and marketing research” (Cheng, et al., 2011 p. 2).

Many modifications have been made through the years. Nowadays we mostly define the term social marketing as: “a process that applies marketing principles and techniques to create, communicate, and deliver value in order to influence target audience behaviours that benefit society (public health, safety, the environment, and communities) as well as the target audience” (Kotler, 2008 p. 7).

In some literature sources we can meet with the term ‘Socio-marketing’. It is slightly open the chapter 3.1. Borchardt describe this term as followed: "Socio-marketing focuses on expanding or changing social attitudes, while commercial and non-commercial marketing deals with more interests of individual organizations" (Borchardt, 1994).

In my work I have decided to focus on social marketing. It is closer to my interest and aim of this thesis. To reduce childhood obesity, or at least to make the population aware
of the rising problem, it is necessary to point out the health consequences and social impact.

3.1 Social marketing vs. commercial marketing

To be able to understand the difference between these two marketing disciplines it is necessary to closely define each of them. The term ‘marketing’ has gone through many modifications within many years. Among the latest definitions is one stated by Kotler (2013). He looks at marketing as a process through which individuals and groups acquire what they need and want. This is by a way of creation, offering and free exchange of products and services with others.

3.1.1 Differences

The benefits of commercial marketing accrue to the marketer’s group. On the other hand, the benefits of social marketing are in favour of individuals, groups or the whole society. Social marketing is focused on customer behaviour. This sector is trying to influence individual attitudes in many different disciplines, like health education, marketing/advertising, anthropology, and social psychology are (Weinreich, c1999).

Cheng et al. (2011) describe four behaviour changes by which social marketers try to influence their target audience:

- **Accept** a new behaviour (e.g., composting food waste).

- **Reject** a potentially undesirable behaviour (e.g., starting smoking).

- **Modify** a current behaviour (e.g., increasing physical activity from 3 to 5 days of the week).

- **Abandon** an old, undesirable one (e.g., talking on a cell phone while driving).

3.1.2 Similarities

As is noticeable from the previous chapter, the main distinguishing factor is the type of product sold. We can also find many similar points of view between these two disciplines. Kotler and his co-writers (2002) define few of them, such as:
• A customer orientation is applied – the marketer knows that the offer (product, price, place, and promotion) has to appeal to the target audience.

• Exchange theory is fundamental – customers need to be aware of benefits that equal or exceed the perceived costs.

• Marketing research is used throughout the process – to be able to create effective strategies, it is necessary to do proper research and understand the specific needs, desires, beliefs, and attitudes of target adopters.

• Audience are segmented – strategies must be tailored to the unique wants, needs, resources, and current behaviours of differing market segments.

• All 4Ps are considered – for building high-quality strategies, it is required to integrate all 4Ps, not just one of them.

• Results are measured and used for improvement – feedback is valued and seen as “free advice” on how to do better next time. (Kotler, 2002 p. 11)

3.2 Social marketing specification

“Social marketing principles and techniques are most often used to improve public health, prevent injuries, protect the environment, and increase involvement in the community” (Kotler, 2002 p. 20).

This is the reason why I choose social marketing for my thesis. The main focus of the work is to improve public health, specifically children’s health. As has been written before, what we learn in childhood we mostly keep to our adulthood. This is why we have to put more effort into changing the lifestyle of our children.

3.2.1 Major issues

Many points exist where social marketing can be applied. Among the most common belong four of them. These four are closely identified by Kotler et al. (2002):

• Health improvement – among these problems which could be solved by social marketing belong, for example, physical inactivity, fat intake, fruit and vegetable intake, high cholesterol, obesity, diabetes, eating disorders and many more.
• *Injury prevention* – factors related to many unnecessary injuries and which social marketing tries to prevent are: drinking behind the wheel, not using seat belts, suicide, sexual assault etc.

• *Environmental protection* – lately, many famous people became involved in campaigns to save the world. These videos, shots or advertisements are focused on waste reduction, litter reduction, forest destruction, acid rain, air pollution from automobiles and others.

• *Community involvement* – in this area, social marketing focuses on the engagement of more people into organ donation, blood donation or voting.

3.2.2 **Principles and techniques**

Social marketing principles are patterned on general marketing principles. According to Kotler et al. (2002), the process of marketing always begins with marketing research. Based on this research, marketers try to understand market segments, its needs, wants, problems, behaviour etc. Afterwards the target group is selected. One of the most important element is to establish the goals and objectives of the plan. Marketing mix, with its “4Ps”, is used for influencing target markets: product, price, place, promotion. By carefully picked these four tools the plan can be implemented. Once it is put into practise, the control and evaluation may start.

Kotler (2016) presents some factors of success for changing individual behaviour, such as:

- Choose target markets that are most ready to respond.
- Promote a single, doable behaviour in clear, simple terms.
- Explain the benefits in compelling terms.
- Make it easy to adopt the behaviour.
- Develop attention-grabbing messages and media.
- Consider an education-entertainment approach.
3.2.3 Project owner

“In most cases, social marketing principles and techniques are used by those on the front lines for improving public health, preventing injuries, protecting the environment, and engendering community involvement” (Kotler, 2002 p. 12).

The project owner can be any of professional agencies and organizations which work for the government, such as “Centres for Disease Control and Prevention”, “Community health clinics”, or “World Health Organization”. There also many non-profit organizations, such as “Green Peace”, “Nature Conservancy”, “Friends of the Earth”, and/or profit organizations, which focus on social and health problems all over the world.

3.3 Planning process

As was mentioned before, social marketing planning has a similar construction to commercial marketing. Both of these disciplines are carefully planned through many steps. There are a number of reference books that discuss how to properly develop a marketing plan. I chose the one from Kotler and his colleagues (2002 p. 34). They summarise these steps within answers on four major questions:

- Where are we?
- Where do we want to go?
- How will we get there?
- How will we keep on track?

We can mostly meet with a division into 10 steps. All ten steps are actually included within these four questions. I like Kotler’s (2002) dividing, it clearly defines our position in each point and helps us to better realize where we need to go next.

3.3.1 The initial phase

The first step which has to be made in the planning process is the analysing of the social marketing environment. Here must be summarized the factors which have led to the development of the plan.
Step 1: Determine program focus – “A focus is selected to narrow the scope of the plan, choosing from the vast number of potential options to contribute to the plan’s purpose the one the plan will address” (Kotler, 2008 p. 35).

Identify campaign purpose – It is necessary to state what impact and benefits will the social marketing campaign generate.

Conduct an SWOT analysis – Strengths, weaknesses, opportunities and threats; “The analysis provides a quick audit of organizational strengths and weaknesses and environmental opportunities and threats” (Cheng, et al., 2011 p. 19). This analysis is deeply described in Chapter 5 “Methodology”.

Review past and similar efforts – Learn from the past, “consider using strategies and materials that have already been developed” (Kotler, 2002 p. 37).

3.3.2 Determining phase

This chapter deals with our requirements, objectives and goals. Who do we want speak to, what actually do we want to achieve from this plan, and what barriers might we have in our way?

Step 2: Select target audience – “An audience segment is identified and aggregated by the shared characteristics and needs of the people in a broad audience, including similar demographics, psychographics, geographic, behaviours, social networks, community assets, and stage of change” (Cheng, et al., 2011 p. 20).

Step 3: Select objectives and goals – Social marketing objectives include behaviour objectives – something which the target audience needs to accept, reject, or abandon; knowledge objectives – information or facts we want the market to be aware of, once they understand them, they might change their behaviour; belief objectives – supposed to touch our target audience’s feelings and change attitudes. Goals should be relative to our objectives (Kotler, 2008).

Step 4: Analyse target audiences and the competition – determine current knowledge, beliefs, and behaviours of target audiences. “It is also the phase in which competition, perceived benefits, and barriers to action are identified and understand” (Kotler, 2002 p. 38).
3.3.3 Phase of strategic planning

In the strategic planning phase must be determined a way for reaching our aim. The fifth step is concerned with the social marketing strategy. This strategy has the same 4Ps strategy to commercial, it is called 4Ps or also marketing mix. Marketing mix contains the main four elements:

Step 5:  
Product 
Price 
Place 
Promotion.

Mr. Weinreich (c1999) defines social marketing mix as the 8Ps strategy (deeply described in the Chapter 5 “Methodology”), where additionally to those four common for both marketing disciplines belong:

Public 
Partnership 
Policy 
Purse-strings.

3.3.4 Implementation phase

The last phases are about controlling and evaluating of the course of planning. If the sixth step is well evaluated, we can move to the budget and final version of the campaign.

Step 6: **Develop a plan for evaluation and monitoring** – Monitoring is used during the midcourse of the planning process to ensure that established marketing goals are going to be reached. The evaluation relates to a measurement and creates a final report on what happened during the campaign. Measures usually fit into three categories – *output measures* (campaign activities), *outcome measures* (concerning target group, changes in its knowledge, beliefs, and behaviour), *impact measures* (contribution to the plan purpose) (Cheng, et al., 2011).

Step 7: **Establish budgets and find funding sources** – “The budgets for a social marketing campaign reflect the costs for developing and implementing it, which include those associated with marketing mix strategies (the 4Ps) and additional costs anticipated for monitoring and evaluation” (Cheng, et al., 2011 p. 24).
Step 8: **Complete an implementation plan** – this is the final step which summarizes necessary functions and details information about the whole process – “*who will do what when, and for how much*” (Kotler, 2002 p. 43).

### 3.4 Social advertising

Advertising is a form of communication where information is transferred between an entity (firm or institution) and a customer. The difference between commercial and social advertising is in the purpose of the message. While the goal of commercial is to promote and sell goods, services, or even the brand itself, the effort of social advertising is to change the behaviour and thinking of individuals.

Jurášková (2012) defines the social advertising as a communication tool with the aim to influence an attitude of the public in a specific social area; by the adoption of positive minds should be the target audience be touched.

The social advertising is according to Světlík (2003) a tool to awaken and strengthen the sense of co-responsibility for disadvantaged groups in society, to motivate them to participate in solving their problems and to provide help.

#### 3.4.1 Promotional tool

Advertising belongs to marketing mix. It is one of the promotional techniques. Hall (2014) says that even though advertising may reach a wide audience we need to be careful about the extension of our advertising campaign. It is necessary to focus on the desired market. He explains four main important decisions which have to be made with respect to the various media available:

- **“Select the media mix; e.g., what combination, if any, of media do you require?”**
- **Determine the level of target audience reach and frequency; e.g. what proportion of your target audience do you want to receive your message and how often?**
- **Establish timing and scheduling of the advertising campaign; e.g. how often do you want to advertise over what period?**
- **Negotiate and purchase media; what’s the best deal you can get in terms of the effectiveness you require?”** (Hall, 2014 p. 94)
The advertising can be used both in online and offline form. Generally, we talk about:

- TV spots
- Product placement
- Radio spots
- Outdoor advertising
- Advertisement in cinemas
- Printed media – flyers, brochures
- Internet advertisement
- Press advertising – newspapers, magazines

### 3.4.2 Ethical aspect

Social advertising puts emphasis on using the emotions that affect the recipients. An intervention is important because instead of goods are promoted values and visions of society, and also the effort to correct and solve problems in our society. Advertising has to attract, bring something new, and catch the attention of the audience. To be able to fulfil its function, it often uses harsh pictures with sincere slogans. The topics of social advertising are mostly more unpleasant and painful than commercial. Therefore, greater emphasis must be placed on the ethical code.

In the Czech Republic, ethics in advertising is stated by The Code of Advertising Practice. The Code is secured by The Czech Advertising Standards Council, which is a member of the European Advertising Standards Alliance. The main objective of the Council is to: “ensure and promote honest, legal, truthful and decent advertising in the Czech Republic” (Rada pro reklamu, 2005).

In Chapter II (named General principles of advertising practise) of the Code of Advertising Practice (2013) are defined points which should be in correlation to advertising social responsibility:

- Advertising must not use the fear motive without a valid reason.
- Advertising must not abuse prejudice or superstition.
- Advertising must not contain anything that could lead to or support acts of violence.
- Advertising must not contain anything that would grossly and indiscriminately offend ethnic, racial or religion of consumers.
Advertisements can use traditions, customs and symbols that are not common in the Czech Republic (for example, Santa Claus). However, advertising cannot deny or disparage the traditions, customs and symbols that are common in the Czech Republic (Jesus, St. Nicholas and Easter customs, etc.).

The Czech Advertising Standards Council may also apply the principles of the Code of Ethics called "Children, Youth and Marketing" of the International Chamber of Commerce (ICC) with the seat in Paris. This includes not only general regulations, but also child safety, food advertising and non-alcoholic beverages directed at children and school advertising (Rada pro reklamu, 2013).

3.4.3 Motivation appeal

Social advertising is mindful of keeping the public informed and educated in society’s problems. There are many ways how to communicate social problems with the target group. How big will be the interest of the public in the problem depends on the type of social problem and the chosen communication strategy. However, it also depends on the style of the message that communicates the problem with target groups - so-called appeals. Social advertising uses informational appeal, emotional appeal, and/or appeal by celebrities. Social advertising is aiming for some prestige and high credit. Famous people who are perceived by society as trustworthy, with good opinions of some importance, are often faces of campaigns.

3.5 Social marketing campaigns in the world

This chapter analyses the world social campaigns focusing on childhood obesity. The highest level of childhood obesity in the world is in the USA. America has been struggling with child obesity for many years. It is involved in various programs and projects fighting against obesity. These projects are usually supported or even created by large food producers (like Coca Cola or Pepsi Co), and also by famous celebrities such as the First lady Michelle Obama. As far as the European continent is concerned, the United Kingdom is ranked among the most affected countries. In this part of the thesis are examined just American and English campaigns. Both of these are focused on children.
3.5.1 Let’s move

The US is the country most afflicted by childhood obesity in the world. Almost one in three children over two years are already overweight or obese. The epidemic of childhood obesity is widely discussed. According to Reuters agency, the medical costs directly associated with overweight are around $150 billion a year in the US. On the basis of this fact, the First Lady of U.S. decided to create a campaign called Let’s move. The campaign was launched in February 2010.

Objectives

The aim of the program is to reverse the unfavourable trend in childhood obesity within one generation, so that children who are born today should have the right weight after reaching adulthood. “Let’s Move! is about putting children on the path to a healthy future during their earliest months and years; giving parents helpful information and fostering environments that support healthy choices; providing healthier foods in our schools; ensuring that every family has access to healthy, affordable food; and, helping children become more physically active” (Letsmove, 2017).

The first-ever Task Force on Childhood Obesity was set up by previous president Barack Obama. It focused on five main pillars:

1. Creating a healthy start for children;
2. Empowering parents and caregivers;
3. Providing healthy food in schools;
4. Improving access to healthy, affordable foods;
5. Increasing physical activity.

Target group

The main target group of the campaign are parents. The campaign encourages them to make healthy decisions and help their children to do the same. It gives parents clues on how to start with change and build healthy habits for life for their children. The campaign encourages them to engage physical activities as well as healthy eating. Schools also deserve a brief mention. Schools try to create an appropriate environment for children. They provide quality nutrition, integrate physical activity during the day and teach children about the importance of embracing a healthy, active lifestyle (Letsmove, 2017).
Campaign design

Figure 4 shows the logo of the campaign. Here can be seen the two main aspects of obesity prevention. Motion aspect in the form of a ball and jumping child above it, and an apple that illustrates a healthy diet.

![Logo](image)

*Figure 4: Let’s move logo
Source: Letsmove, 2017*

Communication strategy

The communication with the target audience is based in the campaign’s website. There can be found all the information about Let’s Move for children and adults. It includes facts about childhood obesity in the USA, tips for healthy eating, types of physical activities done with family, in the school, outdoors and many more. It uses social media, uploads videos on YouTube, but the strongest role plays events. These events are attended by the First lady as well. She boosts the attractiveness of these events. As she stated (2017): "In the end, as First Lady, this isn’t just a policy issue for me. This is a passion. This is my mission. I am determined to work with folks across this country to change the way a generation of children thinks about food and nutrition." Her attitude is one of the reasons why the campaigning has been so successful. It cooperates with many celebrities and sports organizations. Among these belong also the US Olympic Association, which has helped fight obesity and offered beginner athletic programs free of charge to 1.7 million children in 2012.
3.5.2 Change4life

The Change4life campaign was set up in the United Kingdom. It was launched in January 2009 and it is the first national social marketing campaign focused on the obesity issue. It is run by the Department of Health. The campaign alludes to the dangers of current time. “Nine out of 10 of our children today could grow up with dangerous amounts of fat in their bodies. This can cause life-threatening diseases like cancer, type 2 diabetes and heart disease” (Change4Life, 2016).

At the beginning of this year, a new part of the campaign was launched, focused on reducing sugar consumption. Parents should realize through this campaign that products they buy contain a lot of sugar – snacks, sugar drinks.

Objectives

The Change4life has a simple and clear aim: “Motivate and support millions more people to make and sustain changes that will improve their health” (Change4Life, 2016).

The campaign might help families and middle-aged adults improve their eating habits, motivate them to live a more active life and lead them to reduce an alcohol consumption. The campaign uses the apt slogan "eat well, move more, live longer". The slogan can be also seen in some forms of the campaign design.

Appeal

The campaign is in the first-place a campaign for England and Wales. There were also created arms of the campaign for Scotland and Northern Ireland. Scotland uses the “Eat better, feel better” slogan. For Northern Ireland the following slogan “Get a life, get active” was created. The entire campaign appeals to whole families. But primarily it focuses on parents of young children. It tries to boost their interest in behavioural change. The campaign proposes six healthy behavioural changes which should be implemented by the followers. These are:

- Consumption of fruits and vegetables – 5 portions each day.
- Attention should be paid to the amount of salt in food. It is recommended for adults to consume less than 6g per day.
- Reduce alcohol consumption.
• To avoid fat from the daily menu, especially saturated fats.
• To avoid sugar or replace it with healthier alternatives – see. the new campaign.
• Increase a physical activity – to move more every day.

Campaign design

Figure 5 shows the design of English campaign.

![Change4life logo](source: Change4Life, 2016)

Communication strategy

The campaign uses various marketing tools to attract people to its purpose. It includes TV and radio spots, social media such as Facebook and Twitter, and PR and direct marketing. Television advertisements are in the form of animated, fun trailers, especially aimed to children. Change4life was a previous sponsor of the sitcom The Simpsons. It runs on Channel 4 in England. All campaign information can be found on the website. It is an interactive page with links to healthy recipes, basic information about the diseases, references to a large number of activities. It also contains videos, quizzes and links to two mobile applications. The first helps with cooking, there can be found over 160 recipes. The second one is “Food scanner”. This app can check the composition of very product in the store.

Change4life has many partners it works with. Such as: “major national retailers, household name brands and major organisations, including commercial brands as well as government departments and NGOs, providing them with all the support and materials they need to change health outcomes and to help influence people’s behaviour across the country” (Change4Life, 2016).
4 OBJECTIVES AND RESEARCH QUESTIONS

The following chapter is concentrated on establishing clear and comprehensible objectives. The second sub-chapter is focused on research questions. These will be answered on the basis of research and the practical part of the thesis.

4.1 Objectives

The aim of this thesis is to design the concept for a social marketing campaign that would lead to an increased public awareness of the growing issues of rising childhood obesity and to motivate parents to prevent the spread of the disease among their children.

4.2 Research questions

In order to achieve the objectives of my work, I have identified the following research questions.

RQ 1: How much are parents aware of the growing problem of childhood obesity?

RQ 2: How could the awareness of childhood obesity be spread among larger amount of people?

RQ 3: What are the specifics of creating a social marketing campaign in the area of childhood obesity?
5 METHODOLOGY

The theoretical part was based on research from available literature and verified internet sources. This section was focused on the explanation of the main thesis issues. These include the determination of the term childhood, specification of obesity and related matters. Also provided were definitions for social marketing and social advertising and individual parts of social marketing planning were described.

The chapter Methodology is aimed at defining individual methodologies, which are further used in the processing of the practical part. Detailed explanations are provided of the thesis research and other necessary parts of the social marketing campaign, such as the SWOT analysis, social marketing mix and media plan.

The practical part is divided into two parts. The first one deals with questionnaire research and its evaluation. The evaluation helps also with creating a suitable social marketing campaign, which is the second part of the practical section of the thesis. There is in detail described the social problem, objectives and goals of the campaign, and analysis of the environment. The strategy for the work is created afterwards.

5.1 Research methods of management and marketing

5.1.1 SWOT analysis

One of the most widely used analyses in companies is SWOT analysis. Thanks to this analysis, a strategic management of the business keeps track of the situation in the market and the company itself. Even though the work does not deal with the business environment, it is suitable to use this analysis for research of the current situation in the market where my campaign will be applied.

“SWOT stands for “Strengths, Weaknesses, Opportunities and Threats” and it’s one of the best ways to conduct a competitive market analysis for your product or service. This popular tool will help you focus on your internal capabilities and align them with external opportunities. When done correctly a SWOT Analysis will help you find a distinct advantage over your competitors. It will guide your marketing efforts for maximum impact” (Harry, 2014 p. 13).

As it can be seen in Figure 6, the SWOT analysis focuses on two different environments – microenvironment and macroenvironment. The microenvironment consists of internal
factors. It is a combination of strengths and weaknesses. According to Kotler (2002 p. 99), internal factors may influence campaign resources, service quality, and our ability to influence and respond to target audiences. The macroenvironment includes all external factors. “It is the set of forces typically outside the influence of the social marketer, but they must be taken into account” (Kotler, 2002 p. 102). We talk about cultural, technological, demographic, economic, political and natural forces, and/or external publics.

\[\text{Figure 6: The SWOT framework}\]
Source: Chernev, 2014

In general, the analysis of the environment, the competition market, and the target group helps us to identify potential chances and risks. “Generally, you want to build on strength, exploit opportunities, fix weaknesses (before you get trampled by your competitors), and develop a strategy for dealing with threats” (Stutely, 2012)

5.1.2 Social marketing MIX

One of the key concepts of marketing theory is marketing mix. It is a marketing function plan that defines the basic dimensions of a complex product. At the same time, it expresses the points of contact in which the interests of the supply side and the demand side meet (Bačuvčík, 2016).

Jakubiková (2013) completes the definition of Bačuvčík and say that the marketing mix is a set of controllable marketing variables, prepared for the company’s production program to meet the needs and desires of the target market. It is made up of several elements that are interconnected and is characterized by the search for their optimal proportions.

The four basic elements of marketing mix are product, price, place and promotion. The composition of marketing mix is looking at the market from the point of view of the seller.
In some literatures, we can meet with an extension of marketing mix. Weinreich (c1999) talks about social marketing mix as the 8Ps tools. He adds to the concept four more research objects as you can see in the Figure 7. These are: Public, Partnership, Policy and Purse string.

Figure 7: Social marketing mix 8Ps
Source: Own creation

Product

“If motivating people to change their health or social behaviour were as easy as convincing them to switch brands of toothpaste, then there would be no need for the subfield of social marketing” (Weinreich, c1999 pp. 9-10).

In the way of social marketing the product is not a tangible thing. It is an appeal for change in the target group’s behaviour or approach. Therefore, it is more difficult to engage people’s attention to the problem. They have to see some benefits from the change. It is necessary to highlights its attractive features (Weinreich, c1999).

Mr. Harry (2014) states in his book some important aspects which should be considered during the campaign planning, such as:

- Product name
- Size and packaging
- Product design
- Product functionality
- Warranty/replacement policy.
Price

Price is the financial value we have to pay for specific products or services. In the social marketing point of view, the price is more meaningful. As Weinreich (c1999 p. 12) wrote: “The price could be monetary, but more often in social marketing it involves intangibles such as time, effort, and old habits. Emotional costs can be part of the price as well”. The benefits reached by the change in behaviour of the target group should be perceived as more valuable than the price. If the cost outweighs the personal benefit, the product will not be attractive to the customer and the risk of rejection is increased. If the price is lower than the perceived value of the product, the probability of receiving the product is much higher (Weinreich, c1999).

Place

In commercial marketing, the place is also known as the “channels of distribution.” It is the place where customers can get hold of the product. “Because in the social marketing programs the product is a behaviour rather than a physical item, the question then becomes, “Where is the behaviour available to the target audience?” (Weinreich, c1999 p. 14).

People are not going to step of their way to find the campaign. Therefore, the message has to be glaring in the place where they are making decisions. Some of suggested places by Weinreich (c1999) where can be message delivered to the target group:

- Television news programs,
- Radio talk shows,
- Supermarket snack food aisles,
- Doctors’ office waiting rooms,
- Children's schools,
- Shopping malls,
- Commuting routes, etc.

Promotion

This is the way to make the customers aware of the product. In social marketing, the main aim of promotion is motivating people to change their behaviour and then continue in the effort. Promotion includes many tools, which create together a complex communication strategy. Weinreich (c1999 p. 15) ranks among these tools the following:

- Advertising (TV, radio commercials, indoor ads, billboards, posters);
- Public relations (press releases, letter to the editor, appearances on talk shows);
• Promotions (coupons, contests, in-store displays);
• Social media (Facebook, Twitter, Instagram);
• Media advocacy (press events designed to encourage policy change);
• Personal selling (one-on-one counselling, peer educators);
• Event marketing (fairs, concerts).

Marketers of marketing campaigns often try to find the cheapest way to promote their ideas. Some communication agencies are willing to implement a campaign at advantageous prices or even for free, then is used the term “pro bono” - in the interest of the common good (Bačuvčík, 2011).

Public

Under the term public we can understand various groups involved in the social marketing campaign. These are divided into the external and internal public. The most important external public is the target audience. There might be also secondary audience (target audience’s members – family, friends, teachers, physicians). Between external audiences belongs also policymakers, and/or “gatekeepers” in the controlling role. The internal public are those who works on approving or implementing the program (Bačuvčík, 2011).

Partnership

“Social and health issues often are so complex that one organization cannot make a dent by itself. By teaming up with other groups in the community, your organization can extend its resources as well as its access to members of the target audience” (Weinreich, c1999 p. 17). Cooperation of several organizations that collaborate with each other on one project.

Policy

Policy is one the most important aspects of the marketing mix. Changing negative behaviour of people is not easy, therefore it is necessary to use political pressure to solve some problems, especially in cases that depend only on people’s voluntary and free decision. In the last years multiple organisations made efforts to deter smokers from smoking. There were plenty of campaigns with deterrent pictures. But it was the government that introduced the regulation that banned smoking in public places.
Purse string

“Most organizations that develop social marketing programs operate through funds provided by sources such as foundations, governmental grants, and donations” (Weinreich, c1999 p. 18).

5.2 Quantitative research methods

The research in this thesis is based on quantitative research methods. These methods provide information on the amount, frequency of occurrence, and extent of the research sample. It can clearly show the results in terms of numbers (Gavora, 2010).

One of the quantitative methods is the interview. At the start of the research I attempted to create a structured interview. This is one of the basic methods of research used in various social sciences. Unlike other questioning methods (such as a written questionnaire), the interviewer uses direct contact with the interviewee (the respondent). Depending on the purpose of the research, the interview may be either with an individual or a group, structured (with the number and sequence of questions) or free - spontaneous narration (Průcha, 2012).

This method is useful because it allows for additional oral questions. But the group of respondents represents only a very small population sample. Therefore, I decided to gain more respondents through the questionnaire research.

The method of questionnaire research is based on written questions to which written answers are obtained. Questionnaire research is a good way to get a large number of respondents with a small investment of time (Gavora, 2010).

5.2.1 Research sample

The questionnaire was addressed to parents of children from first, second and third classes at primary school, which is situated in Brno. The school has two classes in each of the mentioned years. Children who attend 1st, 2nd or 3rd class of first school are mostly in age of 6 to 8 years. This age range falls into the younger school age group which is the target group for this thesis. One of the eminent Czech obesitologists Marinov (2017) said that the group of younger school age children belongs among the most critically endangered by the spreading of obesity. Children do not make decisions for themselves
in this age, therefore their parents were asked to fill in the questionnaire. The questionnaire was given home to 114 parents of these pupils.

There were created two forms of questionnaires, in Czech language and in English. The Czech version can be seen in an Appendix 1. It was created because of the distribution among Czech citizens. The second, English version is attached in an Appendix 2. A fulfilled questionnaire can be seen in an Appendix 3.

5.2.2 Research schedule

The questionnaire was constructed in conformity with the findings in the theoretical part. The questions are partially closed and partly open. The open questions helped provide content-rich answers. The questionnaire includes 9 questions - 2 of them are closed, 2 had to be filled (these provide child’s details), and the rest 5 are open.

The questionnaire was set up to determine parental awareness of childhood obesity and secondly, based on the information obtained from the questionnaire I will be able to create a more tailored marketing campaign.

First two questions are literally informative for me. Thanks to the responses I get the basis for calculating the BMI index. The third question looks deeper into the knowledge the respondents have of overweight, as well as the last two open questions of the questionnaire, which are closely linked to the third one. Answers to the questions number 4, 5, 6 and 7 will primarily help me to establish the social marketing campaign - to analyse the target market, to create a SWOT analysis, to design the marketing campaign, to set up a communication strategy.
6 RESEARCH RESULTS

Our society is dealing with rapid growing adulthood obesity. But the problem with rising childhood overweight and obesity is significant as well. I would even say that currently it is more important to focus on the problem with the children’s disease than adult’s one. There are advertisements in the media for weight loss products, but these are mostly aimed at adults. Therefore, people pay more attention to obesity in adulthood than in childhood. I would like to find out by this research how much the parents are aware of obesity in childhood.

The first two questions have a fact-finding character. In the theoretical part I defined factors of the BMI index according to which child’s weight is measured – sex and age, weight and height. Thanks to these four factors I can calculate the BMI index for each child.

The next question aims at finding out the level of awareness among respondents their children’s weight. Chart 3 shows how much parents think their child suffers from overweight.

![Chart 3: The respondent’s awareness of childhood overweight](Source: Own creation)

From the research sample, 90% of respondents are confident that their child does not suffer from higher body weight. 10% of them believe their child are overweight.
Based on the BMI index counted for each child I can compare results (reality) with the data given by parents. By making the comparison I learn how much off the parents were in their answers to question n. 3.

From literature (chapter n. 2.3.4) we already know that BMI between 85 – 95 percentile means a child is overweight, while the percentile higher than 95 determines a child’s obesity. Calculation is made with the aid of online BMI calculator\(^1\) for children.

Chart 4 shows the results after BMI calculation. 10% of respondents were correct in the question n. 3 when they stated that their child suffers from overweight. Another 10% were incorrect. After calculating BMI, it has been shown that another 10% of children are overweight as well.

A part of these 20% is comprised of individuals who are only slightly above the weight that is optimal for their age, sex and height, i.e. their BMI percentile lies between 85 - 95. Unfortunately, the results also show that some children’s proportions exceeded the 95th percentile. Table 6 shows the number of overweight and obese children.

---

<table>
<thead>
<tr>
<th>The number of children</th>
<th>Overweight percentile 85 &lt; 95</th>
<th>Obese percentile 95 &lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>6</td>
</tr>
</tbody>
</table>

*Table 6: Number of overweight/obese children
Source: Own creation*

It would be wrong to say that children with higher weight are not led to active life by their parents. Only two respondents mentioned negative attitude of their children to the physical activities. Unfortunately, those two children suffer from overweight.

Because the question number 4 was open, parents could mention more than just one type of physical activity in which they try support their children. In the Chart 5 we can see what kind of activities are the most preferred by children and their parents.

*Chart 5: Listing of preferred movement activities
Source: Own creation*

The most favourite sport is cycling. Parents quite often do this type of activity together with their children. Ball games are in second place, with floorball and football the most popular. Pupils also play volleyball, basketball, badminton and baseball. With the same number ended a swimming, playing on the playground and athletics. Swimming, playing on the playground and athletics are also popular options, with the same number of respondents stating that their children do these activities. Swimming is one of the healthiest sports, and so it is very praiseworthy that many parents guide their children
towards it. Playing on the playground used to be the easiest way to physically entertain and tire children. Nowadays, it is not too common. According to my opinion, this is the result of media pressure making the parents frightened. As a result, they rather leave their child playing computer games at home. Other popular outdoor activities include roller skating, walking and running.

Physical activity goes hand in hand with eating habits. The more sweets children eat at this age the harder it will be to get rid of this habit in older age. The next question shows how many respondents reward their children with sweets.

![reward chart]

*Chart 6: Type of reward for success
Source: Own creation*

Chart 6 shows respondent’s answers on the question 5. Out of all respondents, 32% of them stated that they reward their children with sweets. 6% of them use the sweets as the only reward, while 26% of them combine sweets with something else. Chart 7 shows the types of other rewards which parents give to their children for achieving something. By achievement I mean a good mark at school, a place in competition, helping with housework or anything else that the mother or the father or even grandparents consider worthy of reward.
The list shows how many alternatives parents use as a reward instead of sweets. The most often was answer a word praise. Nice, not expensive reward which should be worth enough for children. Some respondents pick material gifts, such as toys, clothes and/or books. Not so good reward, according to Zlatko Marinov (2017) is money. Respondents cannot know what children buy for it. Generally, they buy sweet stuffs like sweet drinks, chocolates, candy bars etc. Nice and clever are rewards in form of some trip or a funfair, and cultural events (a movie in the cinema, a theatre or a musical performances). A few respondents mentioned also permission to access on the Internet, playing computer games or watching TV.

The question number 6 should help me to set up a communication strategy for the campaign. The answers show where the information the respondents have about childhood obesity comes from. Chart 8 listings the respondent’s ideas.
According to respondents, information about childhood obesity is most visible in the television. Respondents mentioned specific shows and programs where they encountered information about the issue of rising numbers of obese children—namely “Sama doma”, main TV news, and other programs on “ČT”. The second most common media source was the Internet. Respondents also read some articles about the issue in newspapers or magazines. The lowest number of respondents learned about it in the radio. Unfortunately, there are also parents who have not noticed any information about childhood obesity at all.

The next question closely follows the previous query. Respondents could choose one of options that suits them the best. The options were chosen on the basis of the literature survey (chapter n. 3.4.1). The marketing tools used for advertising promotion are as followed: Television, Internet, Billboards, Flyers, Radio and Public press. Chart 9 shows the percentage layout of suggested tools.
The marketing tool where advertisements are the most visible is television. According to the evaluation of data from question 6, this answer might in part explain the majority of answer “TV” in the previous question. The second most often mentioned source is the Internet. In our society, people spend many hours on the Internet every day. Not so surprising is the third place for billboards. Due to heavy daily traffic people have time to look around and read advertisements on billboards. Flyers and radio commercials were mentioned by about 5% of the respondents. No one mentioned public press.

The aim of the following question was primarily to find out whether parents are aware of the risks of growing childhood obesity. All respondents express their opinion on the issue in some way. Because the question was open, the respondents could give more than one reason. Therefore, the frequency of answers exceeds the number of respondents. The answers were quite similar, as can be seen in Chart 10.
The combination of bad eating habits and a lack of physical activity were the most often mentioned causes. Among the bad eating habits, the parents included higher amounts of sweets, eating at fast-food restaurants, using unhealthy cooking ingredients, overeating, and/or the inability to get rid of past eating habits. Lack of activity goes hand in hand with increased sitting in front of TV or PC. Genetic predisposition was mentioned as a reason by 4% respondents. I suppose those people already have some experience with obesity. 5% of respondents think that poor parental models and their inconsistency are the causes of rising obesity.

The last question is closely related to the previous one. In this query I was asking if parents know any consequences of the stated causes.

The most common response was illness. This is quite a broad term. If the answer was supplemented by a specific disease (e.g. high blood pressure) or other type of consequences (e.g. low self-confidence), I counted it as a valuable answer. In the opposite case I did not take it into account. I chose this solution because according to my opinion it is necessary to be able to name the problem accurately. When we are capable of defining the problem, we know exactly what we fight against. There are 20% of respondents who do not think much about the consequences. Chart 11 shows various types of impact that the respondents are aware of.
The most of the corresponding parents realize that obese children can have hard times in our society. They suffer not only from social problems, which include bullying, mockery, social exclusion, but also from mental problems. These children lose self-confidence and prefer to shun society. As far as the disease is concerned, respondents are the most aware of heart problems. As mentioned, heart problems are related to various illnesses, high blood pressure, heart attacks, and even death. Another disability group includes problems with the musculoskeletal system. Here the respondents mostly mentioned joint disease, curvature spine, flat feet, or growth defects. They are also aware of potential health problems in adulthood. Diabetes could be both congenital (cannot be cured) and formed during life.
7 SOCIAL MARKETING CAMPAIGN

This chapter focuses on the campaign itself. The campaign is based on a combination of information from theoretical research and the results of a questionnaire survey along with professional experience and my own creativity.

7.1 Campaign purpose

A few months ago, I heard a bit of information about childhood obesity on the radio. Since then I started to pay more attention to adverts on this topic. Unfortunately, I did not hear the original message again on the radio and I did not notice much about the issue on other communication channels and sources either. Therefore, I have decided to get know about this issue a bit more. On the basis of the information provided in the previous chapters, I decided to create a campaign which will inform the general public about this issue.

7.2 SWOT analysis

The SWOT analysis focuses on opportunities and threats that may occur during implementation process. The strengths and weaknesses are based on the findings stated in the previous part of this thesis and on own opinion. SWOT analysis summarizes and identifies factors which influence the campaign.
<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Currency important issue</td>
<td>• Disinterest in childhood obesity</td>
</tr>
<tr>
<td>• Involvement of professionals and doctors in the issue</td>
<td>• High advertising costs</td>
</tr>
<tr>
<td>• Financial support – health insurances, EU policy (Horizon 2020)</td>
<td>• Difficulties in reaching target groups</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>THREATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enter into partnership and sales promotion with producers of healthy nutrition, sports equipment</td>
<td>• Failure to meet campaign expectations</td>
</tr>
<tr>
<td>• Establish collaboration with organizations that also fight against childhood obesity or other child illnesses</td>
<td>• Lack of effect on the target group</td>
</tr>
<tr>
<td>• Involve the target groups (see grandparents) in the issue</td>
<td>• Disinterest in childhood obesity</td>
</tr>
<tr>
<td>• Developing scale of communication tools – wider range</td>
<td>• Suppression of campaign by another issue</td>
</tr>
<tr>
<td>• Cooperation with organizers of sports events - FSpŠ, SVČ Lužánky</td>
<td>• Financial difficulties</td>
</tr>
<tr>
<td>• Time of implementation - end of the school year, children’s day</td>
<td>• Introduce a new concept campaign</td>
</tr>
<tr>
<td>• Expand to other cities</td>
<td>• Future campaigns</td>
</tr>
</tbody>
</table>

Table 7: SWOT analysis
Source: Own creation

The table 7 shows the strengths and weaknesses of the current situation that may affect the progress and outcome of the campaign. There are strong opportunities that could make the campaign more successful. There are also many threats that has to be eliminated.

7.3 Objectives and goals

The campaign aim is to raise the attention of parents and grandparents of young children and present them an alarming message about growing childhood obesity and to warn them against the causes and consequences of this disease. To create a sense of need in the target audience and make them interested in the issue. An important goal is to make adults aware that the problem occurs much earlier than in adulthood and also that being fat is not only an aesthetic problem, but that it carries more risks. It is necessary to think about the eating habits of children and increase their level of energy expenditure. In general, the goal is to
reduce the number of obese children in the Czech Republic and raise awareness about the problems.

7.4 Target audience

Although there are projects to support the fight against childhood obesity, they are largely focused on children themselves. One of these projects is the "YesNeYes" project, which took place between 2007 and 2013 and was initiated by the General Health Insurance Company in the Czech Republic. The problem with raising childhood obesity is still important - it is actually getting worse. Therefore, I have decided to focus more on adults. The target group of this campaign is primarily parents and grandparents of children.

Research shows that one of the crucial periods for obesity inception is the younger school age, the age of 6-9 years old children. Children at this age still do not decide their eating habits or physical activities that they do in their free time. It's the parents who set their daily routine. Therefore, parents should be aware of the causes and possible consequences of their actions in relation to children. In this period, they play the greatest role in the upbringing of their children. The campaign will be mostly Brno – based. This is because of the financial demands of media tools.

7.5 The product

One of the most important issue when creating a social marketing campaign is to choose simple, catchy name that stands out. The campaign design must make it clearly understandable what the main purpose is.

7.5.1 Campaign name

The campaign name must be simple, easy to remember and original. It must evoke curiosity, interest and the desire to learn more in the target audience.

The campaign wants to highlight the constantly increasing number of children suffering from overweight or obesity. In order to prevent this phenomenon, (grand)parents need to become aware of childhood obesity issues and begin to rectify their own habits (e.g. stop giving sweets to own children). Therefore, I chose for my campaign the name:

“STOP STEREOTYPES”
The first word “stop” should create the feeling that there was already enough of something. It is necessary to find a new start. The second word “stereotype” is a set of unchanging, constantly repeating concepts or gestures. Nobody likes stereotypes. So, this world might provoke feelings of displeasure.

Because the campaign will be realized in the Czech Republic, the slogan for campaign will be also in Czech language – “KONEC STEREOTYPŮM”. The word stereotypes could difficult to pronounce for people who do not speak English.

### 7.5.2 Campaign design

The campaign design was developed over several days. There were many ideas and concepts of the design. The final draft can be seen in the figure 8.

![Campaign design](image)

*Figure 8: Campaign design
Source: Own creation*

The campaign design is crafted in a way that is supposed to evoke multiple sensations and levels of view in observers. Primary, the campaign uses the image to capture the
anachronism of earlier times - the "design background". The image should also point to a high amount of sweets that are given to the children by parents and grandparents, especially as a reward - "grandmother". The sporting aspect is depicted in the image as well. Out of the sports activities that children often do in their free time, I chose the one which uses the most affordable equipment - "the ball".

What people should mainly see in this picture is a grandmother who tries to impose a chocolate on her grandson, but he rejects it because he would rather get a soccer ball instead.

All drafts of designs were created for free, mainly thanks to my good personal relationship with the designers.

7.6 **Communication Strategy**

The aim of communication strategy is to get the target audience’s attention. The strategy has to take into account the determinants of implementation – i.e. both timing and budget. Due to the limited budget, the campaign tries to get maximum out of low-cost forms of marketing communications tools, i.e. the Guerilla marketing\(^2\). The campaign is identical for all communication tools.

Campaign promotion will be divided into two parts, nationwide and local, in order to keep the financial costs as low as possible. Events, billboards and distributed leaflets will be implemented just in Brno.

### 7.6.1 Advertising

One of the most effective communication strategy tools is television advertising. Unfortunately, it is less accessible to low-budget organizations, because of the financial demands. Therefore, my campaign will not be promoted in television. Commercial spots will be placed on cinema screens and in radio. The spots must be as short as possible to save costs. There are other, cheaper options as well - advertisements on billboards, advertising banners, or flyers distributed in public places.

\(^2\) (MediaGuru, 2018)
Advertising spots

One of the reward that children receive for their successes are cultural events, these include visits to cinema. Before the beginning of each movie, the spots run on the screen. A 10 seconds long spot will be placed on the cinema screens. Radio spots will also take place. These spots will attempt to attract visitors to the event. The length of the trailer will be 15 seconds.

Billboards

Current situation with traffic jams is getting worse. Drivers stay in jams for hours. Therefore, billboards around roads are one of the best place for advertising. There will be rented 5 places for my campaign.

Public transports

The advertising in public transport will run in two two-week periods. The first two weeks will be at the start of the campaign. The second two weeks will run at the end of campaign time. The promotion in the public transports will have two forms – leaflets and advertising in LCD monitors.

Flyers

Flyers will be distributed to paediatricians' surgeries, elementary schools as well as the offices of professional consultants. The leaflets will also be used in the events. They will contain the main purpose of the campaign. Links to website and other social networks and also information about each event.

7.6.2 Website

The website will have a dual look. After placing a domain, the page will be divided into two parts - "Advices and Tips for Parents" and "Funny Tricks for Children". In the first page, visitors will also be able to find basic information about the campaign. Of course, all tabs will be created on the base of the Code of Ethics.

The section for parents will be further divided into:

- What is childhood obesity? – the basic information about the disease, explanation of main causes and consequences
• How to change the lifestyle? – the basic rules of a healthy style
• Healthy cooking tips
• Help is there – advices from experts, place for asking questions, link to experts
• Go in for sport – tips for trips, links to sports clubs that accept young sports talents
• Bazaar with sportswear

Child section:

• I like games – tips on outdoor and indoor games
• Recipe for small chief cooks
• What can I create? – creative ideas for manual work
• I want to be like you – photos and articles of successful athletes with reference to clubs dedicated to this sport

7.6.3 Social media

Social media has been one of the most frequently used communication tool in recent years. Therefore, the campaign will also be placed on Facebook, Instagram and YouTube. A project page will be created on Facebook, where the visitors will find advices and tips on fighting with obesity – for example focusing on sports, healthy recipes, information on events, etc. People could upload their own ideas, ask questions, share photos, and many more activities which are typical for a Facebook page. Instagram will closely follow the Facebook with pictures, photos, and videos. YouTube will run the same spot as cinema.

7.6.4 Event

Events will be created in co-operation with RC AUTA that organizes events for children. The main goal will be to spread information about growing childhood obesity among parents. A campaign banner will be on display at the event. There, parents will be able to ask for information, to have questions answered, and an advice on healthy lifestyle will be given to them. They will have leaflets and brochures at their disposal. Games and competition for children will be prepared as well. Also, a little kitchen for preparation fast healthy snacks will be built. Both children and parents could prepare some delicacy for themselves.
7.7 Implementation

The following chapter deals with the rest of work necessary to prepare and launch a marketing campaign. Issues such as timing, budget, evaluation and risks assessment are prepared and described here.

7.7.1 Timing

The entire campaign will run within one and a half months. It will begin in the middle of May and end at the end of June. In the given period of time, the campaign will attempt appeal to the parents and make them aware of the risk of childhood obesity and convince them give their children something else than “ice cream sundae” as a reward for good marks at school report.

Less costly media will run the whole time without breaks. This includes the website, Facebook, Instagram and YouTube. Billboards will be used for one month, in June. Children have no longer any tasks to school, and therefore they spend more time outdoors. Therefore, it is most likely that the billboards will get their attention at this time. Events will take place at the end of a month. In both cases during the weekend because of parents' time options. One day before each event, a short radio spot will run. Because radio stations are not among the preferred media, there is no need to spend more money on this form of promotion. Parents often take their children to the cinema. To touch deeply the target group with the message, short video spots will run in the cinema two times for two weeks. At the same time a campaign will be run on the LCD monitors in public transports.

The table 9 shows the campaign media plan. A small cross means the marketing tool will be used on that day. Red crosses (x) represent tools that will run since the begging of the campaign till the end without breaks. Blue crosses (x) represent tools that will run from 18th - 31st of May in the first period and from 16th - 29th of June in the second period of campaign.
Media plan

<table>
<thead>
<tr>
<th>Month/Promotional activity</th>
<th>May</th>
<th>June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Website</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Commercial spots in the cinema</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Billboard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indoor advertising in public transport</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Radio commercial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flyers</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Facebook</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Instagram</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>YouTube</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Event</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8: Media plan
Source: Own creation

7.7.2 Budget

The budget includes all the costly items associated with creating and promoting the campaign.

One of the less costly items is the creation and introduction of websites. There are web portals such as https://cs.wix.com/, where can be created a web page for free. The domain has to be paid. The price for it ranges from 75 CZK to 300 CZK per year. The price depends on the type of domain. For our purposes, the cheapest of them will suffice, it is .eu. It can get in http://www.cesky-hosting.cz/domeny/.
Worse is the launch of advertising spots in the cinema. Here is need to be spend money on creating a spot, which is around 2 500 CZK for 10 seconds. Under these conditions, a company named Reklama Vysočina s.r.o. produces it. In addition, it is need to be spend money on renting advertising places. The campaign will run on the screen of the two most visited cinemas. One unit looks as followed: For a 10 seconds spot before 4 movies (minimum amount) there is a two weeks rental (minimum time) for 28 750 CZK.

The most listened radio in Brno is the Radio Crocodile. It has 194 000 listeners. Advertising creation costs 250 CZK. For the purpose of this campaign is a 15 second spot enough. One advertising spot will cost the campaign 413 CZK. The spot will be repeated 5 times over a day.

The price for billboards production is around 1200 CZK. Its paste at a predetermined location in Brno costs 800 CZK. The monthly rent is 3 900 CZK. These services for the above prices are provided for example by RealMedia.

Promotion in public transports will be divided into two parts. Both parts include 2 weeks of promotion. It is the lowest possible time which could be rented. The smallest possible number of leaflets distributed in public transports is 50 pcs and it costs 3 500 CZK. Additionally, advertising on LCD monitors should run for at least 2 weeks and it costs 12 000 CZK. This service is provided by AIPT- advertising in public transport.

Leaflets will be distributed to the primary schools in Brno, they will be also distributed to the doctors' surgeries and to the largest number of nutrition experts. Flyers will be at disposition in events either. Sarpet company offers production and import of 2 500 leaflets for 1 105 CZK.

The last costly item is the event. This item includes the price for promotional roll ups, cooking ingredients, brochures and badges. For example, already mentioned Sarpet company offers one roll up for 967 CZK. Badges as an advertising gift for visitors will be given by this company 100 pcs for 900 CZK. Brochures 500 pcs cost 2 010 CZK. The price of cooking ingredients includes all the products from which healthy snacks will be prepared.

Table 10 lists all financially expensive items. All are listed in the final prices. The sum of these items is the total cost for campaign.
## Budget

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Units</th>
<th>Price in CZK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Website domain</strong></td>
<td>1</td>
<td>75</td>
</tr>
<tr>
<td><strong>Creation of radio spot</strong></td>
<td>2</td>
<td>500</td>
</tr>
<tr>
<td><strong>Broadcasting in radio</strong></td>
<td>10</td>
<td>4 130</td>
</tr>
<tr>
<td><strong>Advertising spot production</strong></td>
<td>1</td>
<td>2 500</td>
</tr>
<tr>
<td><strong>Cinema space rent</strong></td>
<td>4</td>
<td>115 000</td>
</tr>
<tr>
<td><strong>Billboard production</strong></td>
<td>5</td>
<td>6 000</td>
</tr>
<tr>
<td><strong>Billboard paste</strong></td>
<td>5</td>
<td>4 000</td>
</tr>
<tr>
<td><strong>Billboard space rent</strong></td>
<td>5</td>
<td>19 500</td>
</tr>
<tr>
<td><strong>Flyers in public transport</strong></td>
<td>100</td>
<td>7 000</td>
</tr>
<tr>
<td><strong>LCD monitor rent</strong></td>
<td>2</td>
<td>24 000</td>
</tr>
<tr>
<td><strong>Flyers</strong></td>
<td>2 500</td>
<td>1 105</td>
</tr>
<tr>
<td><strong>Facebook</strong></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Instagram</strong></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>YouTube</strong></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Event</strong></td>
<td>2</td>
<td>14 844</td>
</tr>
<tr>
<td>- Rollup</td>
<td>2</td>
<td>1 934</td>
</tr>
<tr>
<td>- Badge</td>
<td>100</td>
<td>900</td>
</tr>
<tr>
<td>- Brochure</td>
<td>500</td>
<td>2 010</td>
</tr>
<tr>
<td>- Ingredients</td>
<td>2</td>
<td>10 000</td>
</tr>
</tbody>
</table>

**IN TOTAL** 198 654 CZK

*Table 9: Campaign budget*

*Source: Own creation*
The social marketing campaign will cost 198 654 CZK. The goal will be to acquire funds worth 210 000 CZK. This amount contain also reserves. The money will be collected on the basis of grant applications from the city and the region, from the funds from the Ministry of Health and Ministry of Education Youth and Sports, grants provided by the EU, and/or from private companies.

7.7.3 Control and Evaluation

There will be several kinds of control. It will focus on customer feedback, budget and compliance with terms. After the launch of the marketing campaign in the market the control of the target audiences’ interest can be continuous, due to the chosen communication tools. The social network part of the campaign will monitor the number of followers, frequency of contributions and rate of liked postings and images. Facebook pages will be monitored by using the Agora Pulse Barometer. This is a free tool that provides analysis of Facebook and compares it with competition. The tool calculates the average percentage rate for several criteria based on the last 50 posts. Another similar tool which analyse social media is Simply Measured. This is a powerful tool that will be used only for 14 days. It can be used for free for two weeks. It creates a complete comparison of up to 9 other pages. The result of the analysis can be exported to an Excel file or a PowerPoint presentation. The goal of social networks is to lead the top spots in the view ratings, popularity and number of active followers. This phase will also deal with the controlling and the ongoing budget evaluation. The budget is fixed and should not be modified. This should help control that there will be no extra costs.

7.7.4 Risk assessment

Risks that may occur during the implementation of the campaign have already been outlined in the SWOT analysis. There are quite many, so it is necessary to focus on them and prepare for them as best as it is possible. The most difficult is to estimate human behaviour. That is why I see one of the greatest risks in the persistent disinterest in this issue. Another problem is that the campaign is very short-term and small, which diminishes its possible effect.
8 DISCUSSION

The objective of the thesis was to design a concept of a social marketing campaign that would raise general public awareness about increasing childhood obesity. Emphasis is put on motivation of parents to prevent the spread of the disease among their children.

The campaign focuses on childhood obesity at younger school age children who attend first to third grades of primary schools. This age is one of the most critical for the inception childhood obesity. Therefore, the campaign is primarily aimed at parents of these children aged from 6 to 8 years. As the best option for detecting awareness of childhood obesity among parents of children, structured interviews were selected at first. However, this method is protracted and does not get so many respondents. Therefore, I decided to use a questionnaire research. Methodical research is described in the Chapter 5 “Methodology”.

Quantitative research was conducted through an inquiry questionnaire. It was set up on the basis of theoretical part. Questionnaires were filled by parents of children from chosen elementary schools. There were 114 forms distributed. The returnability was 80%. This returnability was adequate to get relevant data. The research results are thoroughly described in Chapter 6 "Research results". Based on these results, I was able to answer two pre-defined research questions. The third research question could be answered after the whole social campaign was created.

The first research was dealing with rate of parent’s awareness about the problematic of childhood obesity. The results showed that from the research sample, 20% of the children suffer from overweight or obesity. Another 10% of asked parents define their child as overweight, the rest 10% did not. It means, that 50% parents of children with overweight are not aware about childhood obesity. On the other hand, they are quite well aware of causes of childhood obesity. Causes mentioned in the questionnaire were quite identified to theoretical facts. The only cause which was not mentioned at all was commercial pressure. In 2013, the Ethical Code was set up which regulates the shape of advertisings. It is not allowed to use advertisings which would promote children to insist on their parents or others in an effort to get a particular product. The parents are also quite well aware of consequences related to childhood obesity. Mostly, they think that result of bad eating habits and lack of physical activities are health problems and socio-psycho
problems. Their statements were in compliance with the theoretical data stated by Sahoo (2015) and Hainer (2011).

I found it interesting what Dr. Marinov (2017) stated during a structured interview in the media. He said: "The differences between the gender of children are disappearing. Earlier, mostly the boys were overweight. Nowadays, this claim is no longer true." Based on this statement, I decided to make some extra random calculations of BMI index. The weight, height, and age of the individual remained unchanged. However, I always changed the child's gender for two calculations. Based on these calculations, I can confirm Dr. Marinova statement. The results of BMI for a girl and a boy always remained the same.

The second research question asked about the tools that could be used for spreading the awareness of childhood obesity among higher amount of people. There are number of marketing tools that are commonly used to disseminate information to people, as is stated in the theoretical part of the thesis. The research showed that the most used communication tool by parents is television. This communication tool was also mentioned as a tool where parents already noticed some information about the problems. This fact is quite surprising to me. I would rather expect that in today’s technological time, would people gather more facts on the Internet. That is where I see the potential of the Internet and social networks in spreading the information about the childhood obesity directly to children. I found billboards as very efficient tool. The research showed that billboards are widely perceived tool by parents. The producing and renting costs are affordable to low cost campaigns, as is mine. The radio is also well used communication tool for spreading information to people. The radio stations have a large number of listeners. The advertisements promoted there, are perceived by many people. As I found out by the theoretical research, the world’s campaigns like to use radio for attracting and spreading information about some social problem to general public. I agree that this could be one of the most effective tools during realization of campaign.

The last research question asked about the specifics while creating a social marketing campaign. The main point of creating marketing campaign, was to set up the objectives of the project. Based on the objectives, I could create other issues of the campaign. I found out defining the target group as a very important point. Nevertheless, I would like to influence more groups, but the target one is the most significant. According to its
specifics, I was establishing communication strategies. It was designed on the basis of research results and theoretical background. Afterward, the timing (media plan) plan should be created. Here, I dare to oppose to Kotler (2002). While creating my campaign, I was following his theoretical bases. During the budgeting process, which was almost at the end of the planning process, I realized that the previously planned media plan would be too expensive for my campaign. Also, according to the theory, the social campaigns are financial limited. It means that the budget has to be as low as possible. Therefore, I had to redesign the communication strategy and media plan. Another specification I can see is in the creation of campaign design. It is necessary to save more time for any changes and modifications. The proposal which is showed in this thesis is just a pilot concept which will have to be improved before implementation.

My campaign is a concept for future campaigns with aim of childhood obesity. Therefore, the media plan has to be taken as an information element. It describes the distribution of individual marketing tools. As a timeframe for this campaign, I would propose the end of the school year as described in the practical part. Also, the time-consuming campaign preparation should be taken into account. Some communication channels must be addressed several months in advance (e.g., radio stations have to be informed at least three months before realization of the campaign).

The increasing rate of childhood obesity is a serious problem. We need to disseminate this information among general public. Whether in the form of social marketing campaigns or otherwise, it is necessary to make people aware of it.
9 CONCLUSION

Childhood obesity is a serious socio-healthy problem of current years. Thirty years ago, the world was dealing with childhood malnutrition. Today, the society is facing growing childhood overweigh and obesity. It is not problem just for developed countries but for developing ones as well. The United States are in the worst position, with up to 30% of obese children. Europe has approximately 20% of disabled individuals. In the Czech Republic, there are on average 10% of these children who suffer from obesity. Despite all the measures, created statistics and final reports show that obesity still has a rising character. It is due to the fact that the population is not interested in the problem. They do not realize that without prevention of obesity in childhood, they will have to deal with even worse health and social problems in adulthood.

The theoretical part of the thesis defined and simultaneously analysed child obesity, its causes, consequences, methods of measurement and its prevalence around the world. I have further defined the field of social marketing, examined the campaign planning process and analysed two of the world’s already existing social marketing campaigns dealing with childhood obesity. As a follow up, the research methods were introduced and they were management and marketing methods (SWOT analysis and Social marketing MIX) and quantitative research method (Questionnaire). These methods have become the theoretical basis for the practical part of this thesis. In the empirical part, the results of the research were presented. The choice of quantitative method (questionnaire survey) has proved to be correct as it has allowed me to obtain large amount of data. Based on the research results, I was able to answer two pre-defined research questions.

The main aim of the thesis was to create a proposal for a social marketing campaign to increase the awareness of the rising childhood obesity. After the campaign was set up, the third research question could be answered. In first place, the SWOT analysis was formed. It primarily analysed the external environment of the project. Then, the main objectives of the campaign were identified together with the target group and the communication and the implementation strategies were established. The social marketing campaign was created and thus the aim of this thesis was met.

The issue of childhood obesity must be discussed. Of course, it is mainly about the health and social conditions of people, but unfortunately this problem is reflected in the economic aspects of society as well. In a few decades, healthcare will not be able to
endure the onslaught of these sick individuals due to financial and capacity reasons. Obesity is not just about the appearance, but mainly about the health aspect.

This research brought interesting findings that exhort to the expansion of research into pre-school and older school-aged children. By gaining more financial resources, it would be good to extend the campaign across the whole country.
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APPENDICES
Appendix 1: Czech questionnaire
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Appendix 1

Dotazníkové šetření zjišťující míru povědomí o problematice dětské obesity

Vážení rodiče, dovoluji si Vás požádat o vyplnění krátkého dotazníku. Vaše odpovědi poslouží k vypracování praktické části mé magisterské práce na Fakultě sportovních studií. Odpovědi jsou anonymní a budou využity pouze pro účely této závěrečné práce. Magisterská práce bude vystavena v databázi informačního systému Masarykovy Univerzity.

Děkuji Vám za Váš čas.

Bc. Petra Mervartová

studentka Masarykovy Univerzity v Brně
Fakulta sportovních studií – obor Management sportu

DOTAZNÍK:

1. Jaké je pohlaví a věk Vašeho dítěte?
   a. Pohlaví:
   b. Věk:

2. Domníváte se, že vaše dítě trpí nadváhou?
   a. Ano
   b. Ne

3. Jaká je váha a výška vašeho dítěte?
   a. Váha:
   b. Výška:

4. Vedete své dítě k pohybovým aktivitám? Pokud ano, uveďte prosím jak?

5. Jakou formu má odměna za dosažený úspěch Vašeho dítěte (např. za dobré výsledky ve škole, umístění v soutěžích, pomoc v domácnosti aj.)?

6. Zaregistrovali jste někdy v médiích informaci o narůstající dětské obezitě v ČR? Pokud ano, uveďte prosím v jakých?

7. Vyberte prosím z následujících možností jeden komunikační nástroj, na kterém vnímáte reklamy nejvíce
   a. Televize
   b. Internet
   c. Letáky
   d. Rádio
   e. Billboardy
   f. Tisk

8. Jaké jsou podle Vás příčiny dětské obesity?

9. Jaká jsou podle Vás rizika dětské obesity?
Appendix 2

**A questionnaire survey of the awareness of childhood obesity**

Dear Parent, I would like to ask you to fill out a short questionnaire. Your answers will help to develop a practical part of my master’s thesis written at the Faculty of Sports Studies. Responses are anonymous and will be used only for the purposes of this final work. The master’s thesis will be exhibited in the database of the information system of Masaryk University.

Thank you for your time.

Bc. Petra Mervartová

*a student of Masaryk University in Brno*

*Faculty of Sports Studies - field Sports management*

**QUESTIONNAIRE:**

1. What is the sex and age of your child?
   a. Sex:
   b. Age:

2. Do you think your child suffers from overweight?
   c. Yes
   d. No

3. What is the weight and height of your child?
   e. Weight:
   f. Height:

4. Do you teach your child to have a positive attitude to sport? If yes, please indicate how?

5. What is a form of reward for your child’s success (e.g. good school results, placement in competitions, home help, etc.)?

6. Have you ever noticed in a media information about increasing childhood obesity in the Czech Republic? If yes, please specify in what?

7. From the following options of marketing tools choose the one where you perceive advertisings the most
   g. Television
   h. Internet
   i. Flyers
   d. Radio
   e. Billboards
   f. Public press

8. What do you think are the causes of childhood obesity?

9. What do you think are the risks of childhood obesity?
Appendix 3

Dotazníkové šetření zjišťující míru povědomí o problematice dětské obesity

Vážení rodiče, dovoluji si Vás požádat o vyplnění krátkého dotazníku. Vaše odpovědi poslouží k vypracování praktické části mé magisterské práce na Fakultě sportovních studií. Odpovědi jsou anonymní a budou využity pouze pro účely této závěrečné práce. Magisterská práce bude vystavena v databázi informačního systému Masarykovy Univerzity.

Děkuji Vám za Váš čas.

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studentka Masarykovy Univerzity v Brně
Fakulta sportovních studií – obor Management sportu

DOTAZNÍK:

1. Jaké je pohlaví a věk Vašeho dítěte?
   a. Pohlaví: 
   b. Věk:  

2. Domníváte se, že vaše dítě trpí nadváhou?
   a. Ano
   b. Ne

3. Jaká je váha a výška vašeho dítěte?
   a. Váha:  
   b. Výška:  

4. Vedete své dítě k pohybovým aktivitám? Pokud ano, uveďte prosím jak?

5. Jakou formu má odměna za dosažený úspěch Vašeho dítěte (např. za dobré výsledky ve škole, umístění v soutěžích, pomoc v domácnosti aj.)?

6. Zaregistrovali jste někdy v mědících informací o narůstající dětské obezitě v ČR? Pokud ano, uveďte prosím v jakých?

   Ano - televize, internet

7. Vyberte prosím z následujících možností jeden komunikační nástroj, na kterém vnímáte reklamy nejvíce
   a. Televize  d. Rádio
   b. Internet  e. Billboardy
   c. Letáky  f. Tisk

8. Jaké jsou podle Vás příčiny dětské obezity?

   PC, horší potraviny, malo pohybů

9. Jaká jsou podle Vás rizika dětské obezity?

   ATP, Cholesterol, říkají, mělké a nebevědomí