

# SUMMARY

## Optimism and Its Role in the Context of Health

The central topic of the publication is shaped by the question of whether optimism in the context of health brings benefits or whether it is rather associated with risks.

Understanding the benefits of optimism requires above all paying close attention to how it is defined. Optimism and pessimism do not represent just a single construct in current psychology and the concept of optimism/pessimism sometimes does not even match the commonly used meaning of both concepts. In the book, we introduced optimism as positive illusion (Taylor, & Brown, 1988), unrealistic optimism (Weinstein, 1980), unrealistic pessimism (Heine, & Lehman, 1995), dispositional optimism (Scheier, & Carver, 1985), optimistic or pessimistic attributional (explanatory) style (Peterson, & Seligman, 1987), defensive pessimism and strategic optimism (Norem, & Cantor, 1986).

We verified in several successive studies that dispositional optimism, optimism as an explanatory style and defensive pessimism are different constructs and each of them describes a different part of cognitive, emotional and conative aspects of personality. We have also confirmed that defensive pessimists suffer increased level of anxiety, but lowered expectations for the future despite past successes help them cope with it. The negative relationship between dispositional optimism and explanatory optimism on one hand and defensive pessimism on the other is thus affected by a significant mediating variable: anxiety (Dosedlová et al., 2013).

One of the substantial benefits of our long-term research interest is the **creation of a model of optimism** which has not yet been compiled in Czech specialised literature. We have created two models, the first with a single 2nd order

megafactor, Optimism. However, the other model with two 2nd order factors, called Pessimism (PES) and Hope (HOPE) has proven more suitable both statistically and interpretatively. The 2nd order factor Pessimism strongly saturated dispositional optimism (LOT\_O=0.91) in the negative direction, and defensive pessimism (DPQ\_P = 0.88) and dispositional pessimism (LOT\_P = 0.84) in the positive direction. The relationship of the factor of reflectivity (DPQ\_R=0.46) was positive, and medium-close. The 2nd order factor Hope strongly saturated the factor of hope - path to the goal (ADHS\_P=0.88) and factor of hope - effort (ADHS\_A=0.98) in the positive direction. These factors correspond directly to the theoretical anchoring of the construct of hope. The relationships of other factors were medium-close; feeling of subjective control (OVL=0.41) and anticipation of positive events (POZ=0.38) in the positive direction, anticipation of negative events in the negative direction (NEG=-0.29). We verified the independence of the constructs of optimism/pessimism and hope, since both 2nd order factors, Pessimism and Hope, correlated with one another in the expected negative direction, but their relationship was only medium-close ( $r = -0.60$ ). This model corresponds to the approach of Snyder (2002), who perceives his construct of hope more actively and specifically compared to optimism as a set of thoughts involving commitment to action and modelling of different paths which lead to the goal.

We could then proceed to our central topic and examine the relationship between optimism/pessimism and individual components of health-related behaviour. We were, of course, interested in **the trends in caring for one's health among Czech adults** as well. To this end, we examined a large research sample ( $N = 1268$ ) for the effects of age and gender on health-related behaviour. The question was whether men and women in four age groups (20-35, 36-50, 51-65, 65 and above) differ in the extent of their health-related behaviour. The results of the study have confirmed all assumptions. Young adults show the lowest avoidance of addictive substances. Attention paid to healthy diet increases with age but the rate of physical activity decreases. Physical activity is thus a component of health-promoting behaviour that would be a suitable target for preventative programmes due to its undeniable positive influence on physical and mental health (Leveille et al., 1999; Netz et al., 2005; Fox et al., 2000). The fact that adults pay increasingly more attention to their diet and tend to avoid harmful and addictive substances more with age does not mean that the composition of the diet, alcohol consumption and smoking do not present a problem in the Czech Republic. A report by the Czech Ministry of Health from 2014 states that more than half (57%) of the Czech adult population is overweight or obese, and attempts at reducing this ratio have been unsuccessful. 17% of adults are obese and their number, especially among men, has been growing since the start of the 90s. The ratio of children with higher than normal weight, particularly among boys, is also increasing. The Czech Republic is among the top European countries, following England, Malta

and Hungary, in terms of the number of obese people. The fundamental problem in nutrition in the Czech population is not the lack of food on the market, but unbalanced availability and composition of the diet, excessive energy intake (excess fats and simple sugars), insufficient fruit and vegetables in the diet, high salt consumption, irregular eating, all combined with insufficient physical activity. The use of less suitable methods of preparing food, such as frying or deep frying, is quite common. There are serious incorrect nutritional habits among children and youth, such as skipping breakfast, frequently eating sweets and low consumption of fruit and vegetables. Comparisons by the World Health Organization and the European Commission have shown that alcohol consumption per adult inhabitant of the Czech Republic (expressed as volume of pure alcohol)

was in all cases higher than EU average of 12.45 litres per person (data on the consumption of alcohol in the Czech Republic varies; WHO stated consumption of 13 litres per person in 2014, Kodl et al.'s Report of the Ministry of Health on the Health of the Population of Czech Republic from 2014 states a consumption of 16.6 litres per person). In recent years, approximately 30% of the population were smokers, mostly among young people between 15 – 24 years of age (44.7%). Cigarette smoking is a risk factor particularly for cardiovascular, oncogenic and metabolic diseases and results in millions in direct and indirect losses for the state (Kodl et al., 2014).

We have also proven that health-related behaviour plays an important role in relation to **subjective health complaints among adults** (N = 703). Similarly to emotional stability, care for mental well-being, regular regimen and healthy diet are predictors of a low rate of health complaints. Female gender is a predictor of higher rate of health complaints. Adding behavioural factors into the regression model decreased the influence of dispositional optimism to an insignificant level mainly due to considerable overlap with care for mental hygiene ( $r = 0.627$ ). The impact of defensive pessimism was also insignificant.

Currently, optimism (as a dispositional personality trait and as an acquired cognitive strategy) is perceived as a salutoprotective characteristic (Egger, 2013; Kebza, 2008; Šolcová, 2009) and belongs among psychological determinants of health and health-related behaviour. In 2009, authors Rassmussen, Scheier and Greenhouse published a quantitative meta-analytical study which summarised the outputs of 84 published studies investigating the impact of optimism on physical health. Their main conclusion was that optimism is a significant predictor of physical health. However, this meta-analytical study did not utilise research examining the relationship between optimism and health-related behaviour. Chapter 4.6 examines a selection of studies concerning the relationships of individual constructs of optimism/pessimism to this behaviour. The results are ambiguous. Optimism (dispositional, explanatory, unrealistic) is often proclaimed as a predictor of active coping and better care for one's health, but there are also studies stating that

optimists smoke more, consume more alcohol, do not pay enough attention to information relevant to health and generally lean towards risky behaviour more frequently. **We examined dispositional optimism, optimism as an explanatory style and defensive pessimism as predictors of health-related behaviour** on large samples of Czech respondents. The first study was carried out on college students (N = 1617), the second on a sample of adults aged 20 to 93 (N= 1252).

In either of the cases, the degree of optimism (dispositional, explanatory, strategic) / pessimism (dispositional, explanatory, defensive) did not prove to be a significant predictor in relation to individual factors of health-promoting behaviour. It does not predict dietary habits, substance abuse, preventive measures, regularity of regimen, extent of physical activity, or exposure to or avoidance of sun and other harmful substances. The only proven relationship between the studied variables was a relationship between the degree of optimism/pessimism and care for mental hygiene. Optimists better maintain a good mood, have a positive relationship towards themselves, spend free time with people they like, do not feel stressed often and enjoy sufficient rest and relaxation. The cause of their positive disposition is their way of thinking and the dispositional foundation of their personality, where the biggest role is played by the belief that negative events only have minor impact on other areas of their life. In the second study, we also examined the developmental perspective: age cannot be described as a moderator of the relationship between dispositional optimism, defensive pessimism and components of health-promoting behaviour. This means that younger optimists did not differ in their behaviour from older optimists.

These findings not only enrich the informational foundation of the field, but have a practical use in intervention and prevention programmes. It is evident that the process of creating these programmes must factor in the specific cultural context of the population they target. Many psychologists in the US strive for cognitive restructuring and try to induce a higher rate of explanatory optimism in their clients, knowing it will improve the client's ability to adapt (e.g. Seligman, 2013). For Asians, Chang (2002) recommends promoting general optimistic mood, but also not reducing the extent of pessimistic thinking in relation to specific situations (in the sense of defensive pessimism), since doing so would remove the motivational source for successful adaptation. It seems that none of the constructs of optimism/pessimism will be a significant psychological determinants for intervention programmes in the area of health-related behaviour in the Czech Republic. Significant predictors of health-related behaviour in the Czech Republic are age (health-promoting behaviour increases with age), gender (women exhibit more health-promoting behaviour) and some personality characteristics. While fulfilling the research goals of a project supported by GACR in 2005 – 2007 (reg. no. 406/05/0564, *Determinants of Life Satisfaction and Health of University Students: Body-concept, Health-supportive Behaviour and Selected Personality Characteristics*) we

performed a study on a large research sample consisting of 4292 students from various types of Czech universities. Our study verified that including a larger number of health-promoting habits into the lifestyle positively correlates with conscientiousness, emotional stability, awareness of one's efficiency and better ability to perceive processes which are taking place in one's own body (Slováčková, Dosedlová, & Klimusová, 2008). Hocková (2016) incorporated in her diploma thesis a portion of data collected for grant research (GA 13-19808S). By examining a sample of 537 Czech adults, she proved that health-promoting behaviour is associated the most with responsibility and that carefulness negatively correlates with substance abuse (personality characteristics were measured in accordance with Gordon's approach by using GPP-I). These results correspond with the conclusions of internationally recognised studies (e.g. Kern, & Friedman, 2008, 2011; Friedman, Kern, & Reynolds, 2010) which conclude that conscientious people achieve higher education, greater professional success and better interpersonal relationships. They engage more in health-promoting behaviour and avoid risky behaviour.

However, it would be a mistake to interpret the results of these studies as a proof that the degree of optimism/pessimism has no effect on the health of the Czech population. Though our studies show that higher degree of optimism among respondents repeatedly did not predict the majority of component of health-related behaviour, it may still have a significant effect on the respondent's health through emotional links (relationship between higher rate of optimism and care for mental hygiene has been proven). Optimism reduces the risk of depressive symptoms (Sweeney, Anderson, & Bailey, 1986; Giltay et al., 2006) and many research studies have proven the interdependence between depression and worse state of health and premature death (Peterson, & Bossio 2002, in Chang, 2002). Even in cases where life circumstances significantly deteriorate and place great demands on coping, optimism weakens the relationship between ruminations and suicidal thoughts (Tucker et al., 2013).

We must also not forget the social link between optimism and health. Optimistic people actively seek satisfying social contacts, enjoy a wider social network and subjectively experience a higher degree of social support (Vollmann et al., 2011; Vargová, Dosedlová, & Šmíra, 2016). This prevents social isolation, another predictor of worse state of health (Peterson, & Bossio 2002, in Chang, 2002).

Our team verified that dispositional optimism is a strong predictor of mental health using *Mental Health Continuum – Short Form, MHC-SF* (Keyes, 2002). Dispositional optimism explained 41.7% of scatter of 14 items of MHC-SF divided into subscales of emotional well-being, mental well-being and social well-being (Dosedlová, Klimusová, Jelínek, Havigerová, & Kern, 2016).

Of course, we always have to take into account the limits of our findings. The publication cites 11 original studies, of which seven were carried out on large

samples of close to and sometimes even far in excess of 1000 respondents. We particularly value the last cross-cutting research, which allowed the description and comparison of the studied variables in young, middle and mature adulthood and senior age across a sample of 1252 adults aged 20 to 93.

The main limitations of the research are, nevertheless, tied to the samples themselves, particularly their convenient sampling and composition. Participation in the studies was voluntary and filling out the entire questionnaire battery was quite time consuming. None of the samples is fully representative of the population in terms of gender, age, education and personality characteristics. Compared to the general population, our sample has an overrepresentation of persons with higher education, persons who are conscientious, willing to help and are interested in a healthy lifestyle. In addition, methods based on self-reporting may reduce the reliability of the output.

However, we examined a number of relationships repeatedly, with variations in methods used and on different samples of respondents. What conclusions have we reached? Is being an optimist good for health in the Czech Republic?

For mental health, unequivocally yes. Aside from the fact that optimism is a predictor of mental health, it is also strongly correlated with care for mental hygiene. Optimists are better able to maintain a good mood, spend more time engaged in their favourite activities, rest more and maintain good relationships with the people they like. Care for mental well-being is also a significant predictor of a lower rate of subjective health complaints among Czech adults.

In the Czech Republic, whether adults are choosing a healthy diet, have breakfast regularly, pursue a regular physical activity, smoke, or consume alcohol depends much more on demographic data, i.e. on gender and age, than on the level of optimism or pessimism. In terms of personality characteristics, the strongest psychological predictor of health-promoting behaviour in all its breadth is **conscientiousness**.

Over ten years of research also contribute a wealth of data that can be applied on a macrosocial scale. If we were to summarise research-based conclusions which could serve as basis for planned preventive and intervention programmes, we would state the following:

- it is necessary to reinforce the personal responsibility of each individual for their health, so that they do not simply rely on the protective role of the state and its health care
- disease prevention means primarily adjustment of the lifestyle in favour of health-promoting behaviour
- intervention programmes must be adapted to the target groups in terms of their age and gender; younger people require reinforcing orientation above all towards healthy diet and avoidance of addictive substances; priorities shift in middle adulthood towards promoting increased physical ac-

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tivity; it would be advisable to organise programmes for adjusting dietary habits and reducing weight, especially for men

- increasing positive expectations and positive attributions has no relation to health-related behaviour among Czech adults with good education (respondents participating in our studies)
- it is necessary to take into account the cultural context of the participants when creating intervention programmes; they cannot be adopted from abroad without adjustments