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THE JUSTIFICATION FOR WORKPLACE HEALTH PROMOTION IN THE CONTEXT OF THE INFLUENCE OF PSYCHOLOGICAL VARIABLES ON HEALTH BEHAVIORS

Wioleta GAŁAT

Krakow University of Economics, Department of Public Management; galatw@uek.krakow.pl,
ORCID: 0000-0002-6807-8176

Purpose: The aim of this article is to analyse the impact of psychological variables on the adoption of health-promoting attitudes. Determining this influence will allow for a reassessment of the relevance of employers' efforts related to health promotion in the workplace.
Design/methodology/approach: The Eysenck Personality Questionnaire (EPQR) and the Health Behaviour Inventory (IZZ), a pilot study conducted on a sample of 50 individuals from the Małopolskie Voivodeship.
Findings: The research confirmed the influence of psychological variables on adopting health-related attitudes.
Research limitations/implications: The research confirmed the impact of psychological variables on the adoption of health-related attitudes.
Practical implications: The research allows for a better understanding of human behaviour, including in the workplace. The passive attitudes towards proposed health promotion initiatives may not necessarily be linked to a lack of interest but may instead stem from individual characteristics.
Social implications: In recent years, with the growing popularity of Corporate Social Responsibility (CSR), a noticeable trend has emerged in implementing good practices in the workplace aimed at improving health or health habits. However, a crucial question remains: do these initiatives garner interest and approval from employees? The research results will provide a different perspective on the implementation of CSR activities and the assessment of their effectiveness.
Originality/value: The research findings are valuable for employers implementing or planning to implement health promotion initiatives, and they also serve as a tool for self-awareness.
Keywords: health promotion, psychological variables, personality traits, health-promoting attitudes.
Category of the paper: Research paper.

1. Introduction

The issue of health is becoming a subject of interest for supranational bodies such as the World Health Organization, as well as for individuals who seek better self-understanding and insight into the determinants of their behaviour. In the words of Arthur Schopenhauer: "nine-tenths of our happiness depends on health," humanity often strives to achieve the difficult goal of living in good health. Employers also engage in health promotion to increase their potential. However, a fundamental question arises: how far does individual agency extend, and to what extent do the psychological variables shaping individuals affect whether their behaviours contribute to better and more lasting health?

The aim of this article is to demonstrate how psychological variables influence the adoption of health-promoting attitudes. To achieve this goal, the following research hypotheses were formulated:

1. The higher the psychoticism scores, the lower the scores on the health behaviour intensity index.
2. The higher the extraversion scores, the higher the scores on the health behaviour intensity index.
3. The higher the neuroticism scores, the lower the scores on the health behaviour intensity index.
4. Women score higher on the health behaviour intensity index than men.

In the conducted research, the independent variable was personality dimensions, and the dependent variable was the adoption of health-promoting attitudes.

2. Literature review

2.1. Health Promotion in the Workplace

The concept of health promotion was introduced in 1945 by Henry Sigerist, who associated it with a range of factors influencing the provision of good living conditions, professional activity, education, as well as physical culture, rest, and recreation (Włodarczyk, 2019). Health promotion in the workplace encompasses a broad range of activities aimed at improving employees' well-being and enhancing their job performance. These activities include both preventive and educational measures designed to improve not only physical health but also mental well-being (European Agency for Safety and Health at Work, 2010). Additionally, workplace health promotion is a priority for the European Union in response to rising absenteeism costs and an aging population (Malińska et al., 2012; Goszczyńska, 2019).

Understanding the significance of the workplace in a person's life makes it essential to view the work environment through the lens of health promotion. Creating work conditions that promote health benefits both employees and employers, offering advantages such as increased employee effectiveness, reduced turnover, and a positive employer image (Goszczyńska, 2017).

Employers, as part of their health promotion programs, primarily organize activities related to increasing physical activity, reducing stress, promoting healthy eating, and improving workplace ergonomics. Physical activity is particularly important for promoting health among office workers, who often spend long periods sitting. Research shows that introducing exercise breaks and encouraging active lifestyle choices, such as using stairs instead of elevators, positively impacts employees' health and productivity (World Health Organization, 2010). Employers also organize training programs or group activities that not only improve physical fitness but also foster better interpersonal relationships within the team (Mechelen, 2008).

The dynamics of work and changing work conditions increasingly expose employees to stress. Poland, in particular, is among the countries with the highest levels of workplace stress (Młokosiewicz, 2018). This issue is significant because workplace stress is one of the most frequently reported problems affecting productivity and increasing the risk of psychosomatic disorders. Therefore, implementing stress management programs, such as workshops on relaxation techniques or mindfulness training, becomes crucial. These programs can significantly improve employees' mental health and job satisfaction (Karasek, Theorell, 1990). Examples of good practices include introducing flexible working hours and work-life balance policies, which help manage time and tasks better and reduce excessive work overload through more balanced distribution (Smith et al., 2011).

Another component of workplace health promotion is programs related to healthy eating. Employers can provide access to healthy meals, support healthy eating habits by offering nutritious snacks in vending machines, organizing nutrition workshops, and ensuring the availability of balanced meals in cafeterias. A balanced diet not only improves employees' concentration and energy but also reduces the risk of chronic diseases such as obesity and diabetes, which aligns well with workplace health promotion policies (Malińska et al., 2012).

Additionally, workplace ergonomics is a crucial element of health promotion, as it can help prevent health issues such as back and neck pain, which are common among office workers. Improving ergonomics, such as by providing adjustable chairs, screens at appropriate heights, or keyboards that align with natural hand positions, can significantly enhance work comfort and reduce sick leave, allowing employees to enjoy better health for longer (Pheasant, Haslegrave, 2005).

2.2. Psychological Variables - Selected Concepts of Personality Theory

The concept of personality has a variety of definitions, which results in ambiguity and some difficulty in further discussions. Moreover, it is often noted that this issue is relatively complex and poses challenges for researchers (Kozioł-Nadolna, 2015). A good understanding of the

concept is therefore crucial for any considerations in this area. It is generally accepted that the concept of personality dates back to antiquity, thanks to the philosophical reflections of Plato and Aristotle, as well as the inquiries of naturalists such as Hippocrates and Galen, and ancient writers like Theophrastus, Cicero, and Seneca (Panasiuk-Chodnicka, Panasiuk, 2008). It should also be noted that until the 19th century, psychology developed as a part of philosophy, making it natural to seek the roots of psychological concepts among philosophers. A symbolic date marking the recognition of psychology as an independent science is 1879, when Wilhelm Wundt opened the first experimental psychology laboratory in Leipzig (Jastrzębski, 2009).

Attempts to conceptualize personality were continued by thinkers from subsequent eras. The 20th century is particularly significant in this regard, as psychiatrists Pierre Janet and Jean-Martin Charcot introduced the term "personality" into scientific nomenclature. This marked the beginning of theoretical constructs of personality that are extensively described in the literature (Panasiuk-Chodnicka, Panasiuk, 2008).

J. M. Oldham and L. B. Morris define personality as a system encompassing all characteristics that are typical of a person (Oldham, Morris, 1997). W. Okoń describes personality as a set of stable traits and psychophysical processes that distinguish individuals from one another and influence behaviour, condition the organization of experiences and knowledge, emotional responses, and affect goals and values (Okoń, 2004). Similarly, G. Allport considered traits as the basis for an individual's personality structure. Traits themselves are viewed as predispositions to specific reactions in various situations, and they are also characterized by relative stability (Hall, Lindzey, Campbell, 2010). It is accepted that personality, on one hand, makes us identify as human, and on the other hand, it makes us differ significantly from others. Each person possesses unique patterns of emotions, motives, and perceptions, enriched by acquired schemes of understanding and perceiving oneself and the world (McAdams, Pals, 2006).

The diversity of personality definitions also affects numerous attempts to construct personality theories. Authors P.G. Zimbardo, R.L. Johnson, and V. McCann have classified these theories into psychodynamic, humanistic, existential, and socio-cognitive approaches. In psychodynamic theories, the primary focus is on unconscious motives and the influence of past experiences. Early childhood experiences, according to theorists, play a particularly important role in later mental health. In contrast, humanistic theories focus on the present and the individual's awareness. This approach emphasizes analysing subjective reality, focusing on what is most important to the individual at the moment, and the belief that everyone has an inherent tendency to become better. Self-perception in the context of relationships with others is also significant. Existential theories, on the other hand, attempt to connect the present with an idealized past, assuming that humans strive to find the purpose of their existence and the meaning of life. Socio-cognitive theories concentrate on the combined influence of factors such as perception, learning, interactions with others, and current behaviours, both positive and negative (Zimbardo, Johnson, McCann, 2017).

Theories focusing on traits have also had a significant impact on the development of personality theories. In psychology, the term "trait" refers to an individual's predisposition to exhibit certain behaviours (Makin, Cooper, Cox, 2000). Its importance arises from the intensity with which a trait appears in various situations (Robbins, Judge, 2012). The 1950s are considered the period when trait-based personality theories emerged. These include the concepts of G.W. Allport, R.B. Cattell, and H.J. Eysenck, each based on factor analysis of personality. Eysenck's popular and contemporary theory identified three traits: extraversion, neuroticism, and psychoticism. Using these theories, authors P. Costa and R.M. McCrae added further developments and created the Five-Factor Model of Personality (FFM), commonly known as the Big Five (Hall, Lindzey, Campbell, 2010). This model is currently one of the more popular concepts, where personality is understood in terms of traits (Ostendorf, Angleitner, 1992). Moreover, it is widely recognized and considered not only in psychology (Cieciuch, Łaguna, 2014). The model delineates five dimensions of personality: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness (Cervone, Pervin, 2011). It is important to note that within each dimension, individual traits refer to two poles of the dimension. Thus, they represent a kind of continuum, and individuals can be positioned along its ends (McCrae, Costa, 2005).

The dimension of neuroticism reflects emotional adjustment or instability. Neuroticism is understood as a susceptibility to negative emotions such as fear, psychological stress, anger, guilt, dissatisfaction, or irritability. Neurotic individuals tend to struggle with managing emotions and are prone to irrational behaviours. Conversely, individuals with low levels of neuroticism are characterized by emotional stability, being calm and relaxed, and handling stress better than neurotic individuals (Kaczmarek, Kaczmarek-Kurczak, 2012).

The second dimension, extraversion, focuses on social relationships, considering both their quantity and quality. This dimension also encompasses activity, energy levels, and the capacity to experience positive emotions. A person with high extraversion will be characterized by sociability, friendliness, a zest for life, and a tendency to seek stimulation. In contrast, introverted individuals prefer distance in social interactions, often exhibit shyness, and have a tendency towards privacy and solitude (Kaczmarek, Kaczmarek-Kurczak, 2012).

The third dimension, openness to experience, involves both seeking out experiences and valuing them positively. Individuals with high levels of this trait are characterized by openness to change and cognitive curiosity. They are more interested in both the external world and internal phenomena, possessing a greater number of experiences and insights compared to those with low openness, who tend to exhibit more conventional behaviours and conservative views (Dolna, Dolny, 2009).

The fourth dimension, agreeableness, pertains to a positive or negative attitude toward others. In cognitive terms, this dimension relates to trust or its absence, in emotional terms to sensitivity toward others or indifference, and in behavioural terms to cooperative versus competitive approaches. Individuals high in agreeableness are sympathetic and open towards

others, readily offering help and assuming others are similarly inclined. Conversely, individuals with low agreeableness tend to be egocentric, sceptical of others, and competitive (Kraczla, 2017).

The final dimension, conscientiousness, describes an individual's approach to work. Highly conscientious individuals are distinguished by strong will, motivation, and perseverance. They are often seen as meticulous and reliable, frequently leading to professional success. However, a high level of this trait can also lead to workaholism, perfectionism, and a compulsive need for order. In contrast, individuals with lower levels of conscientiousness tend to exhibit less of these traits and are often more hedonistic in their approach to life (Kraczla, 2017).

One of the more detailed classifications of personality theories was proposed by C.S. Hall, G. Lindzey, and J.B. Campbell. They compiled 15 personality theory concepts and classified them into four approaches. The compilation of these theories is presented in Table 1.

Table 1.
Classification of Personality Theories

Theories Emphasizing Psychodynamics	**Theories Emphasizing Personality Structure**
- Sigmund Freud's Psychoanalytic Theory, - Carl Jung's Analytical Theory, - Psychosocial Theories: Adler, Fromm, Horney, and Sullivan, - Erik Erikson's Contemporary Psychoanalytic Theory,	- Henry Murray's Personology, - Gordon Allport's Theory, - Raymond Cattell's Trait Theory, - Hans Eysenck's Biological Trait Theory.
Theories Emphasizing Perceived Reality	**Theories Emphasizing Learning Phenomena**
- George Kelly's Personal Construct Theory, - Carl Rogers's Person-Centered Theory.	- B.F. Skinner's Operant Conditioning, - Dollard and Miller's Stimulus-Response Theory, - Albert Bandura's Social Learning Theories.

Source: Own elaboration, based on: C.S. Hall, G. Lindzey, J.B. Campbell, *Teorie osobowości*, Warszawa 2010, pp. 49-572.

The proposed classification of personality theories arises from the focus of different authors on various aspects of understanding human personality. In the case of theories emphasizing psychodynamics, the authors pay particular attention to the dynamic forces that condition human behaviour, as well as to the defensive structures unconsciously built by individuals, which protect against these dynamic forces. Theories emphasizing personality structure focus on the dynamics and development of the individual. The core of these theories is the acceptance of a set of traits that make up personality. In theories emphasizing perceived reality, the focus is on individual experiences used to create and react to reality. In the last group of theories, which emphasize learning phenomena, the attention is directed towards the learning process as a determinant of characteristic tendencies in individual behaviour (Hall, Lindzey, Campbell, 2010). The authors also compared the various personality theories, assigning appropriate significance to the parameters outlined according to the analysed theories. A comparison of personality theories is presented in Table 2.

Table 2.
Comparison of Personality Theories

Parameters/Theorists	Erikson	Murray	Sullivan	Freud	Adler	Horney	Cattell	Bandura	Allport	Jung	Eysenck	Kelly	Rogers	Dolleard, Miller	Skinner
Purposefulness	■	■	■	■	■	■	▒	▒	■	■		■	■		
Unconscious Determinants	▒	■	▒	■	▒	■	▒			■	▒	▒		▒	
Learning Process	▒	▒	▒	▒		▒	■	■	▒		■	▒	▒	■	■
Personality Structure	■	■	▒	■	▒	▒	■	▒	■	■	■				
Heredity	▒	▒		■	■		■		▒	■	■				■
Early Development	■	■	▒	■	■	▒	▒	▒			▒			■	▒
Continuity of Development	■	■	▒	■	■	▒	▒	■			▒			■	■
Organic Approach	▒	■	▒	▒	▒	▒	▒	▒	■	■	▒	▒	■		
Field	■	■	▒		■	▒	▒	▒	▒		▒	■	■		
Uniqueness of the Individual	▒	■	▒	▒	■	▒	▒		■	▒	▒	▒	▒		
Moral Approach	▒	▒	▒	▒	▒	▒	▒	▒	▒	▒	▒	▒	■		
Psychological Environment	■	■	▒	■	▒	▒		▒	▒	■		■	■		
Concept of Self	■	▒	■	■	■	■	■	■	■	■			■		
Competence	■	▒	▒	▒	■	▒	▒	■	■			■			
Group Belonging	■	▒	■	▒	■	■	▒	▒			▒	▒	▒	▒	
Biological Basis	▒	■		■	▒		▒		■	■	■			▒	▒
Social Science Basis	■	■	■	■	■	■		▒				▒	▒	■	
Multiplicity of Motives	▒	■					■		■	▒				▒	
Ideal Personality	■	▒	■	■	■	■			■	■			■		
Abnormal Behavior	▒	▒	■	■	■	■	▒	▒		■	▒	▒	▒	▒	▒
Number of Parameters: Strong Emphasis	11	12	6	12	12	7	5	4	9	10	4	4	7	4	3
Number of Parameters: Moderate Emphasis	9	8	11	6	6	10	12	10	5	3	9	8	5	5	3
Number of Parameters: Not Significant	0	0	3	2	2	3	3	6	6	7	7	8	8	11	14

Source: Own elaboration, based on: C.S. Hall, G. Lindzey, J.B. Campbell, *Teorie osobowości*, Warszawa 2010, s. 49-572.

The primary goal of presenting the comparison of personality theories was to illustrate the complexity of the phenomenon and the diversity of approaches. In the table, theories are presented from those that consider the most factors (with high and moderate emphasis) to those that consider the fewest factors (with the highest proportion of factors marked as not significant). However, the quantitative interpretation is just one dimension of the analysis of personality theories. The factors included, which reflect the most critical points in a given theory, also hold significant importance. An interesting observation is the absence of a parameter that is highly emphasized in every theory. Detailed and insightful interpretations of the content were made by the authors of the tool (Hall, Lindzey, Campbell, 2010).

When considering personality theories, it is also important to pay attention to contemporary directions of scientific development in this field. The first of the contemporary theories is the family systems theory, where the primary focus is not the individual but the family. According to this approach, personality is shaped through interactions within the family and subsequently in peer groups (Mones, Schwartz, 2007). Another aspect increasingly manifesting in psychological research is related to culture. Growing awareness of cultural diversity among

different societies leads to the conclusion that people have diverse experiences and values resulting from the distinct experiences of various communities (Quiñones-Vidal, López-García, et al., 2004). A third significant trend in the perception of theories is the influence of gender. Researchers have yet to determine definitively the extent to which behaviour differences between women and men are due to upbringing versus inherent nature. Nonetheless, differences in behaviours between genders are undeniably present. These differences thus condition the proper understanding of individuals (Zimbardo, Johnson, McCann, 2017).

2.3. Factors Shaping Personality Traits

When analysing the issue of personality, it is important to consider the context in which a person's personality develops. Biological factors, upbringing, and culture—an indispensable element of every society—along with social relationships, all play significant roles (Zimbardo, Johnson, McCann, 2017).

In terms of biological factors, genetic influences are particularly noteworthy. Research on twins has estimated the level of heritability of traits. For intelligence, genetics explains its level from 30% to 80%, and similarly, temperament traits are largely explained by innate factors. Basic dimensions of personality, referring to the three traits mentioned by Eysenck or traits from the Big Five, are genetically determined by about 40%. These values are approximate but provide an overall picture of the genetic influence on traits. However, it should be noted that the actual picture for each individual will be somewhat different (Oleś, 2003). Biological factors were studied by Eysenck, who pointed out the significance of the autonomic nervous system on innate neuroticism and extraversion (Eysenck, 1990). With a strong nervous system, we deal with extraversion, and the individual will not react excessively to emotional stimuli (Oleś, 2001).

Generally, it is assumed that about 50% of human traits result from genetics, while the remaining traits are shaped by the environment (Robins, 2005). Within this group of factors, many researchers emphasize early childhood experiences. This includes both the methods and approaches to upbringing and the environment in which the child grows up. Research confirms that if a child is raised in impoverished conditions, they suffer damage to the brain. Such children lose nerve cells in the thalamus, leading to impaired cognitive abilities as well as functions necessary for physical survival (Noble, Houston et al., 2015).

When considering the role of upbringing in shaping personality, it should be noted that the very definition of upbringing indicates that it is a process of planned and conscious activity aimed at shaping personality (Szewczuk, 1985). Other definitions highlight that upbringing is the process of shaping a mature personality, which includes a well-developed and evolved self-concept, self-insight, the ability to objectively assess situations, a personal worldview, and a hierarchy of values (Bielecki, 2002).

Upbringing should also be associated with the development of social competencies. This includes learning to respond to criticism, skills related to expressing emotions, apologizing for mistakes, and appropriate emotional responses. Responsible conversations between parents and children are crucial, as they facilitate the learning of prosocial behaviours, values, and ethical principles. Moreover, recognizing extreme behaviours in children should guide psychoprophylactic and therapeutic directions (Woźniak, 2010). It is important to note that the significant role of upbringing in shaping personality arises from the fact that the family exerts the initial influence on the child, which will have implications for their future life. The family is also the best place for a child's development, as it provides individualized care and addresses their physical and psychological needs. Needs are fundamental to personality functioning, and meeting them has a profound impact on shaping the child's personality. Consequently, literature identifies lists of needs that condition further development. For example, E.J. Murray lists 40 needs, with 12 being physiological and 28 psychogenic, while A.H. Maslow and E. Fromm each identify 5 needs. Despite the various classifications, particular attention should be given to needs that are found across all authors, such as the need for love, emotional contact, and approval. Similarly, M. Ziemska emphasizes four psychosocial needs that are essential for satisfying other needs. These include the need for love, kindness, and emotional warmth, also referred to as the need for emotional contact (Stachyra, 2000).

In the context of family upbringing, attention should also be given to the need for role models. Children start interpreting the world through their immediate family and look for role models to imitate. Equally important are the relationships among family members. For a child's proper development, a friendly atmosphere and its relative stability are crucial. Disruption in stability can lead to insecurity in the child. Parental relationships also play a significant role; research shows that children from families with disturbed relationships more often face behavioural problems and have lower levels of socialization. Additionally, such children are more likely to experience depression, anxiety disorders, and feelings of helplessness and incompetence (Stachyra, 2000). Researchers also highlight the importance of the birth order of children in the family, as each subsequent child is raised in a slightly different environment (Sulloway, 1996). The relationships between siblings are also crucial. When these relationships are good, the child experiences harmonious emotional development, while disrupted relationships can lead to problems with anger, aggression, and emotional detachment (Braun-Gałkowska, 1992).

Understanding the importance of upbringing in shaping a child's personality also requires attention to parental attitudes. M. Ziemska distinguishes four main attitudes, each corresponding to an opposing attitude – Table 3.

Table 3.
Parental Attitudes

Proper Attitudes	**Improper Attitudes**
Acceptance of the child	Rejecting attitude
Cooperation with the child	Avoidant attitude
Allowing the child freedom	Overprotective attitude
Recognition of the child's rights	Overly demanding, coercive, and correcting attitude

Source: Own elaboration, based on: M. Ziemska, *Postawy* rodzicielskie, Warszawa 1973, pp. 57-65.

When analyzing the issue of personality, attention should be given to the context in which personality develops. Biological factors, upbringing, and culture, which are integral parts of any society, as well as social relationships, play significant roles (Zimbardo, Johnson, McCann, 2017).

In terms of biological factors, genetic predispositions are particularly important. Research on twins has estimated the heritability of traits. For example, genetic factors account for 30% to 80% of the variation in intelligence, and temperament traits are also largely explained by inherited factors. Core dimensions of personality, such as those outlined by Eysenck or the Big Five traits, are genetically determined to about 40%. These values are estimates but provide a general picture of genetic influence on traits. It is important to remember that the actual influence can vary for each individual (Oleś, 2003). Eysenck's research highlighted the role of the autonomic nervous system in innate neuroticism and extraversion, suggesting that a strong nervous system is associated with extraversion and less sensitivity to emotional stimuli (Eysenck, 1990; Oleś, 2001).

Generally, it is accepted that about 50% of human traits result from genetic factors, while the remaining traits are shaped by the environment (Robins, 2005). This group of factors often focuses on early childhood experiences, including both educational methods and the environment in which a child is raised. Research shows that children growing up in impoverished environments may experience brain damage, losing neurons in the thalamus, which can impair cognitive abilities and essential survival functions (Noble, Houston et al., 2015).

Regarding the role of upbringing in shaping personality, it is crucial to note that upbringing is defined as a deliberate and conscious process aimed at shaping personality (Szewczuk, 1985). Other definitions emphasize that upbringing involves developing a mature personality, which includes a well-developed self-image, self-insight, objective assessment of situations, personal worldview, and value hierarchy (Bielecki, 2002).

Upbringing should also involve the development of social competencies. This includes teaching responses to criticism, expressing emotions, apologizing for mistakes, and appropriate emotional reactions. Responsible discussions between parents and children are crucial for learning prosocial behaviours and understanding ethical values. Extreme behaviours in children should guide psychoprophylactic and therapeutic interventions (Woźniak, 2010). It is noteworthy that the influence of upbringing on personality development is significant because

the family is the first influence on the child, which impacts their future life. The family is also the best environment for a child's development, providing individualized care and meeting their physical and psychological needs. Needs are fundamental to personality functioning, and their fulfilment has a substantial impact on personality development. The literature identifies lists of needs that facilitate further development. For instance, E.J. Murray lists 40 needs, with 12 being physiological and 28 psychogenic, while A.H. Maslow and E. Fromm each identified 5 needs. Among these, essential needs such as love, emotional contact, and approval are consistently mentioned by all authors. M. Ziemska also highlights four psychosocial needs crucial for fulfilling other needs: love, friendliness, emotional warmth, and emotional contact (Stachyra, 2000).

In family upbringing, the need for role models is also important. Children begin to interpret the world through their immediate family, seeking role models to emulate. Family relationships are crucial, with a friendly atmosphere and relative stability being vital for healthy development. Disruptions in stability can affect a child's sense of security. Parental relationships also play a significant role; children from families with strained relationships often face behavioural issues and lower socialization levels. They are also more likely to experience depression, anxiety, and feelings of helplessness and incompetence (Stachyra, 2000). The order of siblings in the family also matters, as each subsequent child grows up in a slightly different environment (Sulloway, 1996). Sibling relationships are important, with harmonious relationships supporting emotional development and problematic ones leading to issues with anger, aggression, and emotional distance (Braun-Gałkowska, 1992).

Understanding the impact of upbringing on personality development also involves considering parental attitudes. M. Ziemska identifies four main attitudes, each with its opposite, as shown in Table 3.

In summary, analysing the factors shaping personality traits indicates that, despite the complexity of the phenomenon, it is possible to identify some general patterns applicable to everyone. Exploring the relationships between personality traits and life attitudes is particularly valuable for explaining human behaviour, which could be useful for preventive and therapeutic work in the future.

2.4. Definition of Health Behaviors

When addressing the topic of health, it is crucial to mention the World Health Organization (WHO), a specialized agency of the United Nations dedicated to global health protection and disease prevention. Established in 1948 with its headquarters in Geneva, Switzerland, WHO aims to achieve the highest possible level of health for all people worldwide by providing high-quality healthcare, preventing diseases, and promoting health. WHO operates in over 150 countries and collaborates with other governmental and non-governmental organizations to ensure effective global health care. Its activities include disease research and monitoring, developing standards and guidelines for disease prevention and treatment, supporting

vaccination programs and infectious disease control, health education, and coordinating responses to health crises and epidemics (Kickbusch, 2003).

In 1977, WHO adopted a resolution defining the main goal of the organization and its member states as ensuring a level of health that allows full economic and social functioning for all citizens of the world. In response to escalating global health problems, the strategy "Health for All by the Year 2000" was subsequently adopted, outlining the following directions for action:

- Promoting lifestyles and behaviours conducive to health.
- Reducing the incidence of diseases and disorders that can be mitigated by eliminating risk factors.
- Providing basic healthcare services according to needs (World Health Organization, 2000).

Another significant document was *Health 21 – Health for All in the 21st Century,* a strategy developed in 1998. It described 21 tasks for WHO member states:

1. Improve the health of populations by promoting healthy lifestyles and preventing diseases and injuries.
2. Improve the quality and effectiveness of healthcare for all people.
3. Increase public health protection by preventing and controlling infectious and non-communicable diseases.
4. Enhance the efficiency of health systems through better management, training of health personnel, and development of medical technologies.
5. Strengthen the ability to respond to health crises and disasters.
6. Ensure food and water safety and protection from environmental hazards.
7. Improve the health of women and children by providing prenatal, perinatal, and child health care.
8. Improve mental health by preventing and treating mental disorders.
9. Prevent substance abuse, including alcohol and tobacco.
10. Increase access to and quality of palliative care and ensure a dignified death.
11. Enhance health knowledge and awareness through education and information campaigns.
12. Improve the quality of working environments and prevent occupational diseases.
13. Prevent chronic diseases such as heart disease, cancer, and diabetes by promoting healthy lifestyles and regular preventive screenings.
14. Ensure health equity by eliminating health disparities between social groups.
15. Support the health of the elderly by providing better health care and services.
16. Increase international cooperation and coordination in health.
17. Improve the health of populations in low- and middle-income countries.
18. Improve the health of populations in conflict-affected and disaster-prone areas.

19. Support health research and the development of new therapies and medical technologies.
20. Improve the quality of health data and population health monitoring systems.
21. Promote innovative health solutions and improve the quality of health research (WHO Europe. Health, 2020).

These broad principles highlight the importance and complexity of health issues, emphasizing their dependence on various factors. Similarly, definitions of health behaviours underscore the importance of actions aimed at maintaining or improving health.

Health behaviours are actions undertaken to promote, protect, or restore health. Various organizations provide definitions that reflect different aspects of health behaviours:

- World Health Organization (WHO): Defines health behaviours as any actions taken by individuals to promote, protect, maintain, or recover health, regardless of whether these actions are objectively effective. WHO identifies three main categories: behaviours related to diet and physical activity, avoidance of health risks (e.g., smoking), and seeking healthcare when needed (WHO, 2021).
- American Heart Association (AHA): Describes health behaviours as all activities and choices made in daily life to maintain physical and mental health. It highlights seven key behaviours: regular physical activity, a healthy diet, maintaining a healthy weight, avoiding smoking, moderate alcohol consumption, adequate sleep, and stress management (AHA, 2023).
- Centres for Disease Control and Prevention (CDC): Defines health behaviours as any actions taken by an individual to maintain or improve health. It emphasizes key behaviours such as healthy eating, regular exercise, avoiding smoking and excessive alcohol use, and regular medical check-ups (CDC, 2021).
- American Psychological Association (APA): Describes health behaviours as actions taken to prevent disease and promote health, including healthy eating habits, regular physical activity, avoiding substance abuse, managing stress, and personal hygiene (APA, 2023).
- National Wellness Institute (NWI): Defines health behaviours as decisions and actions aimed at achieving full physical, mental, emotional, social, and spiritual potential (NWI, 2023).

All these definitions emphasize the importance of engaging in activities that promote or maintain health, such as a balanced diet, regular exercise, avoiding harmful substances, and personal hygiene. However, the variations in these definitions reflect different approaches to health and highlight the complexity of understanding health behaviours.

2.5. Classifications of Health Behaviors

In the search for the key to good health, a number of classifications have emerged, attempting to gather all factors that influence how people approach their health. The first model, the biomedical model, focuses on the proper functioning of individual cells in harmony with other cells (Uramowska-Żyto, 2009). On the other hand, socio-ecological models approach health in a holistic manner, suggesting that health allows individuals to function fully in social life (Sheridan & Radmacher, 1998).

In 1973, Blum and Lalonde proposed a holistic health model. The authors divided health into four areas that condition it and specified their percentage significance within the overall model (Włodarczyk, 2019) – see Figure 4.

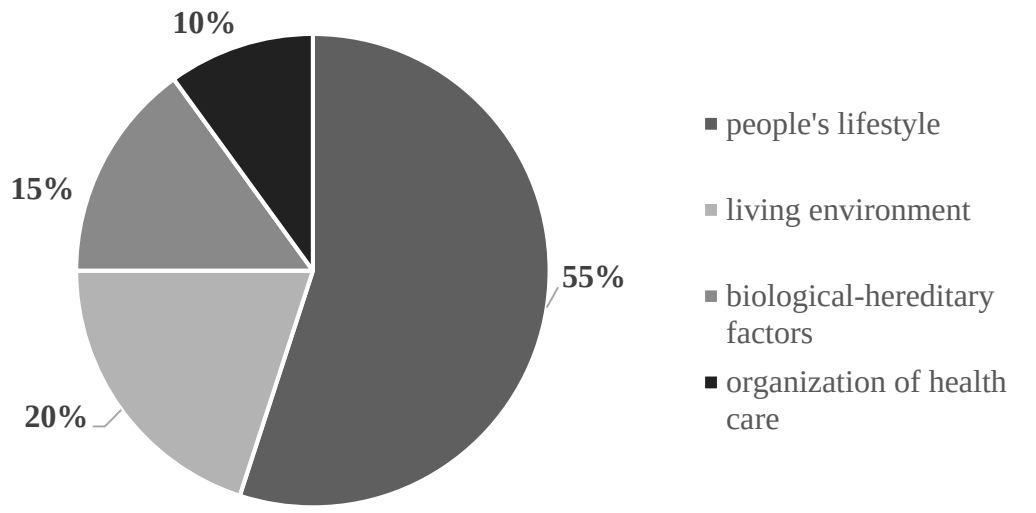

Figure 1. Health areas.

Source: Own elaboration, based on: Włodarczyk, E. (2019), Psychologia zachowań zdrowotnych a promocja zdrowia – wybrane zagadnienia, *Medyczna wokanda*, No. 12, pp. 61-90.

The presented model, despite its general nature, highlights that the primary determinant of health is lifestyle, while other elements are also significant but to a lesser extent. Thus, individual agency emerges as the foremost factor. The literature includes various other classifications of health behaviours. Whitlock identified five areas concerning health: physical activity, diet, alcohol use, tobacco smoking, and emotional well-being (Whitlock, Orleans et al., 2002). Donatelle, on the other hand, distinguished six categories of health behaviours: sexuality, psychoactive substances, types of food consumed, stress, sleep, and safety risks (Donatelle, 2011). Ryan and Yoder identified seven areas where behaviours impact health: diet, physical activity, tobacco smoking, use of psychoactive substances, workplace safety, sleep hygiene, and personal hygiene (Ryan, Yoder, 2018). Additionally, Prochaska and DiClemente identified eight categories of health behaviours: diet, physical activity, avoiding

substances, avoiding psychoactive substances, maintaining mental health, avoiding risky behaviours, avoiding safety hazards, and health monitoring (Prochaska, DiClemente, 1983).

The Health Belief Model (HBM) attempts to explain health-related behaviours by assuming that individuals make decisions about their health based on subjective beliefs, knowledge, and experiences. According to this model, people make health-related decisions based on the following factors:

- Seriousness of the illness - the individual's assessment of the severity and reasons for its development.
- Perceived threat - the assessment of the level of threat associated with the illness.
- Benefits of health behaviours - the assessment of the benefits of implementing appropriate actions.
- Barriers - factors that hinder lifestyle changes.
- Internal motivation - the desire to achieve health benefits (Janz, Becker, 1984).

Another perspective is provided by the Theory of Planned Behaviour (TPB), which suggests that our health behaviours result from our intentions and plans, which are shaped by our beliefs, perceptions of social norms, and our perceived ability to perform a given action. According to this theory, our health behaviour is a result of:

- Our intentions - our plans to carry out a particular action.
- Perceived social norms - societal opinions and expectations regarding our behaviours.
- Perceived behavioural control - belief in our ability to perform specific actions (Ajzen, 1991).

Another classification of health behaviours proposed by Michael O'Donnell, creator of the Health Promotion program, includes five categories:

- Nutrition-related behaviours.
- Physical activity-related behaviours.
- Substance use behaviours, such as alcohol, tobacco, and drugs.
- Safety-related behaviours, including seat belt use and workplace safety rules.
- Stress and emotional control behaviours.

O'Donnell argues that these five categories encompass key areas that individuals and societies can influence to achieve better health (O'Donnell, 2009).

It is worth noting that while the literature presents numerous classifications of health behaviours, they all share several common elements. The differences lie in the focus on specific criteria, while the core principles of each classification remain consistent.

3. Methods

The pilot study was conducted in 2022 in Poland, within the Małopolskie Voivodeship. Participants voluntarily agreed to take part in the study. Inclusion criteria were:

- Residence in Poland within the Małopolskie Voivodeship.
- Age between 20 and 50 years.

Due to the completeness of the questionnaires, all results obtained from all participants were subjected to statistical analysis. The study group comprised 50 individuals aged 20 to 50 years (M = 36.54; SD = 8.55), including 37 women aged 22 to 50 years (M = 36.89; SD = 8.60) and 13 men aged 20 to 50 years (M = 35.54; SD = 8.70). The BMI values of the participants ranged from 19.33 to 39.18 (M = 24.76; SD = 4.57), with women having a range from 19.33 to 34.60 (M = 24.08; SD = 3.94) and men from 19.59 to 39.18 (M = 26.68; SD = 5.79).

The study was conducted in a single phase. Participants completed an original questionnaire along with the following instruments: the Eysenck Personality Questionnaire (EPQR), the Health Behaviour Inventory (IZZ), and the Self-Esteem Scale (SES). This article presents an analysis of the results from the EPQR and IZZ questionnaires.

4. Results

Statistical analyses were conducted using IBM SPSS Statistics. In the first part, descriptive statistics were performed. Next, personality traits were analysed in relation to health behaviours, followed by an examination of the prevalence of health behaviours among women and men.

Table 4 presents the descriptive statistics for the analysed variables, including mean values, standard deviations, minimum and maximum values, and Shapiro-Wilk test values, which were used to verify the assumption of normal distribution for the analysed variables.

Table 4.
Descriptive Statistics for Analyzed Interval Variables

Variable	*M*	*SD*	*min*	*max*	*S-W*	*p*	α
Neuroticism	11,24	5,76	0	21	0,97	0,212	0,88
Extraversion	11,98	4,36	4	21	0,97	0,188	0,78
Psychoticism	6,94	3,25	0	15	0,97	0,149	0,58
Lie Scale	10,58	3,49	3	18	0,97	0,315	0,71
Criminal Tendencies	12,88	5,43	3	24	0,97	0,291	0,80
Addiction Proneness	14,98	4,28	7	24	0,98	0,461	0,67

Source: Own elaboration based on conducted research, where M – mean value; SD – standard deviation; Min – minimum value; Max – maximum value; S-W – Shapiro-Wilk test value; p – statistical significance; α – Cronbach's alpha coefficient.

Statistically significant deviations from a normal distribution were found for preventive behaviours and health practices. Analyses related to these variables were conducted using nonparametric statistical significance tests.

Table 5 presents the correlation coefficients between the intensity of personality traits and the intensity of health behaviours. Due to statistically significant deviations from a normal distribution, the intensity of preventive behaviours and health practices was analysed using Spearman's rank correlation coefficient (ρ). The remaining variables were analysed using Pearson's correlation coefficient (r). A one-tailed statistical significance test was employed.

Table 5.
Correlation Coefficients Between Personality Traits and Health Behaviors

	Health Behaviors				
Personality Traits	**Positive Psychological Traits**	**Preventive Behaviors**	**Healthy Eating Habits**	**Health Practices**	**Overall**
Neuroticism	-0,170	0,138	-0,253*	-0,223	-0,149
Extraversion	0,293*	0,154	-0,069	-0,057	0,145
Psychoticism	-0,251*	-0,076	-0,193	-0,122	-0,193
Lie Scale	0,089	0,285*	0,155	-0,102	0,130
Criminal Tendencies	-0,189	0,072	-0,344**	-0,302*	-0,248*
Addiction Proneness	-0,120	0,195	-0,192	-0,371**	-0,136

Source: Own elaboration based on conducted research, where * $p<0.05$; ** $p<0.01$.

Results on the psychoticism scale were negatively correlated with positive psychological attitude, confirming Hypothesis 1, which posits that higher scores on the psychoticism scale are associated with lower levels of health behaviours. Results on the extraversion scale were positively correlated with positive psychological attitude, which supports Hypothesis 2. Results on the neuroticism scale were negatively correlated with healthy eating habits, consistent with Hypothesis 3. Additionally, analysis of three other scales revealed that results on the Lie Scale were positively correlated with preventive behaviours. Criminal tendencies were negatively correlated with healthy eating habits, health practices, and overall intensity of health behaviours. Addiction proneness was negatively correlated with health practices and overall intensity of health behaviours.

Table 6 presents the mean values of health behaviours in the group of women and men, along with the statistical significance test values for differences. Due to statistically significant deviations from normal distribution, the intensity of preventive behaviours and health practices was analysed using the Mann-Whitney U test. The remaining variables were analysed using the independent samples t-test.

Table 6.
Mean Values of Health Behaviors in Women and Men

Health Behaviors	Women		Men		*t/U*	*p*
	M	***SD***	***M***	***SD***		
Positive Psychological Attitude	20,89	2,63	20,38	3,64	0,54	0,592
Preventive Behaviors	20,41	4,02	17,38	4,46	132,50	0,016
Healthy Eating Habits	20,95	3,79	17,92	3,71	2,49	0,016
Health Practices	19,73	3,44	19,00	5,12	238,50	0,964
Overall	81,97	10,47	74,69	12,20	2,07	0,044

Source: Own elaboration based on conducted research, where M – mean value; SD – standard deviation; t – Student's t-test for independent samples; U – Mann-Whitney U test value; p – statistical significance.

Statistically significant differences were found between women and men in the intensity of preventive behaviours, healthy eating habits, and overall health behaviours. The mean values for the intensity of preventive behaviours, healthy eating habits, and overall health behaviours were higher in women compared to men. This confirms Hypothesis 4, which posits that women have higher levels of health behaviours compared to men.

5. Discussion and conclusions

In the article, four hypotheses were proposed, all of which were confirmed by the research. The first hypothesis stated: the higher the scores on the psychoticism scale, the lower the scores on the intensity of health behaviours. This hypothesis was confirmed. It appears that individuals exhibiting antisocial traits, lack of empathy, emotional coldness, impulsivity, and egocentrism, according to Eysenck's classification (Eysenck, 1992), do not necessarily focus on their own health. This finding suggests that those with high psychoticism scores may not equate their egocentrism with self-care. There may be distortions in their understanding of their own needs due to deficiencies in social functioning. These preliminary conclusions highlight the need for further research on the psychoticism scale and behaviours influenced by high levels of psychoticism.

The next hypothesis stated that higher scores on the extraversion scale are associated with higher scores on the intensity of health behaviours. This hypothesis was confirmed. It turns out that active individuals who are open to new experiences, sociable, and emotionally positive engage in more health-promoting behaviours. This indicates that a positive outlook on life and a desire for continuous new experiences constitute a more deliberate strategy, where attention to health enables a more fulfilling life.

The third hypothesis stated that higher scores on the neuroticism scale are associated with lower scores on the intensity of health behaviours. This hypothesis was confirmed. Analogous to the extraversion scale, anxiety, hypersensitivity, or shyness can inhibit self-care and health concerns. According to this observation, proper self-awareness and understanding of one's own

conditions are crucial for developing health behaviours that can be incorporated into daily life as habits.

The final hypothesis posited that women achieve higher scores on the intensity of health behaviours compared to men. This hypothesis was also confirmed. It is possible that a greater tendency to assume caregiving roles or concern for physical appearance influences women to engage more frequently in health-promoting behaviours. Further research could explore the determinants related to external environment, culture, and traditional social roles affecting health behaviours, as well as their correlation with gender.

Interesting insights also emerge from the positive correlation between the Lie Scale and health behaviours. It appears that individuals with high Lie Scale scores, who seek to present themselves in a better light, engage in many activities that positively affect their health. However, a better understanding of their motivations—whether these behaviours stem from genuine health concerns or merely from the desire to align with current health trends—would provide additional context. The study also found that individuals with high criminal tendencies and addiction proneness scored low on health behaviours. Attention to these three additional scales offers a new perspective on individuals, and a thorough analysis could uncover underlying causes of problems with engaging in health behaviours.

The article attempts to answer whether psychological variables influence health behaviours. The pilot study suggests that they have a significant impact and somewhat shape not only self-perception but also direct further behaviours. This conclusion prompts reflection that understanding one's attitudes toward oneself—since these can also be described as behaviours contributing to better health—begins with self-awareness, a better understanding of one's self-image, and the surrounding world.

It should be noted that the impact of psychological variables on health behaviours may vary depending on the individual and context. Some individuals may be more susceptible to the influence of beliefs, while others may be more emotionally motivated. Thus, research in this area provides a general overview, and actual dependencies can only be captured through individual analyses. Nonetheless, awareness of the influence of psychological variables on health attitudes offers key insights for developing workplace health promotion policies. Despite potential limitations in effectiveness due to psychological variables, implementing such policies remains valuable. However, in a diverse team, finding universal solutions suitable for all employees may be challenging. Better understanding employees and adopting a more individualized approach should yield better results in workplace health promotion. However, it should be noted that varying levels of employee engagement may result from individual personality traits rather than inadequate health promotion activities. Therefore, evaluating health promotion activities should consider not only the level of interest in the policy but also individual employee feedback.

It should be noted that the results are based on pilot studies. Therefore, it would be reasonable to repeat the research on a larger sample in the future. Furthermore, to conduct a more precise study, a good practice would be to limit the research to the workplace of a specific organization. Such a well-planned study could provide valuable material for adopting an individualized approach to planning CSR activities in a particular organization.

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