**ORIGINAL PAPER** 

# LATENT PROFILE ANALYSIS OF PASSION FOR WORK AND ITS RELATIONSHIP WITH PSYCHOLOGICAL WELL-BEING

Karolina Mudło-Głagolska

Kazimierz Wielki University in Bydgoszcz, Bydgoszcz, Poland Faculty of Psychology, Department of Work and Organizational Psychology

#### ABSTRACT

Background: So far, studies based on the dualistic model of passion have ignored how the 2 different types of passion interact in a person's identity. The aim of this article is to identify profiles of passion for work and their consequences for psychological well-being. Material and Methods: The survey was conducted on a sample of 522 employees of various employment sectors. The Passion Scale was used to assess passion for work, while to explore well-being, the anxiety and depression subscale of the General Health Questionnaire (GHQ-28) and the Subjective Vitality Scale were employed. Latent profile analysis (LPA) was used to distinguish the passion profiles, following which the results regarding well-being in the following groups were compared using non-parametric tests. Results: Four passion profiles have been identified. They are termed as high-moderate (profile 1: high harmonious passion for work and moderate obsessive passion for work), high (profile 2: high harmonious passion for work and obsessive passion for work), and low (profile 4: low harmonious passion for work and low obsessive passion for work). Employees with a low score for both harmonious passion for work and obsessive passion for work had the lowest score regarding well-being. Conclusions: This study was one of the first to use the LPA approach to explore the configuration of passion for work. It provided an indication of how the different dimensions and levels of passion set up with each other and what their consequences would be. The conducted research emphasized the protective role of the harmonious passion for work against the negative effect of obsessive passion for work. Med Pr. 2022;73(4):315–23

Key words: employee, organization, psychological well-being, subjective vitality, latent profile analysis, passion for work

Corresponding author: Karolina Mudło-Głagolska, Kazimierz Wielki University in Bydgoszcz, Faculty of Psychology, Department of Work and Organizational Psychology, Staffa 1, 85-867 Bydgoszcz, Poland, e-mail: mudlo@ukw.edu.pl Received: January 15, 2021, accepted: April 19, 2022

#### INTRODUCTION

A significant part of human life is devoted to work, which is why the passion for one's own work and its consequences are becoming an increasingly popular topic. However, such a belief also limits attention to the negative dimension of passion and its possible negative impact on psychological well-being. Moreover, scientific research on passion in general and on passion for work ignores the fact that 2 dimensions of passion coexist in a person's identity, focusing solely on the separate results of 2 variables. Therefore, this article uses a person-centered approach to minimize this limitation.

#### **Passion for work**

According to the dualistic model, passion is an activity that a person devotes time to, likes it, considers it important, and which is part of that person's identity. Two dimensions of passion have been distinguished: harmonious passion and obsessive passion [1].

Harmonious passion is defined as the motivating force that leads individuals to consciously engage in activities; it is under the control of an individual, and remains in harmony with other aspects of their lives. Harmonious passion results from the autonomous internalization of activity. When internalization is autonomous, people voluntarily accept social principles, current values, rules or goals, and incorporate them into identities of their own accord, thereby considering them personal and important. In other words, the person has accepted the activity as important and valuable to them without feeling obliged. Hence, although the subject of passion occupies a central place in human life, it is not excessive, and passionate activity leads to engagement that is active, flexible and adaptive [1].

In turn, obsessive passion is associated with internal pressure forcing individuals to fully engage in action [2]. The controlled process of internalization is related to the fact that the representation of passionate activity is part of a person's identity, but the indicated

rules are only partially internalized or remain outside of that identity, which is an indicator of acquiring obsessive passion. Obsessive passion controls individuals and leads to conflicts with other aspects of their lives because of the excessive space it occupies and the rigid nature of engagement. In the case of obsessive passion, the person engages in an activity due to intra and/or interpersonal factors, for example, self-esteem or the need for social acceptance, or emotions resulting from engagement in an activity that becomes uncontrolled [1].

Both employees with harmonious passion and with obsessive passion love their work, but in the case of the latter, their involvement causes a conflict with other spheres of life. For such people, it is passion, e.g., passion for work, that is the only source of self-esteem [3]. It is worthwhile that the internalization process is not an all-or-nothing process. Therefore, it is possible that both dimensions of passion will be present in a person's identity, but to different degrees. Vallerand [2] gave the following example: depending on the presence of various social and personal factors, it may happen that an individual's internalization process is autonomous in 80%, leading to predominantly harmonious passion in that person. Referring to this example, it should be added that 20% of the internalization process takes place in a controlled manner, which leads to a certain level of obsessive passion [2].

# Profiles of passion for work and psychological well-being

In the context of the considerations presented in the article, it is worth paying attention to the specific relationships between harmonious and obsessive passion with hedonistic and eudaimonic indicators of well-being, as well as to the value of using the person-centered approach in these analyses.

The hedonistic approach focuses on constructs such as happiness, positive affect, negative affect, and life satisfaction [4]. The general level of well-being is a product of interactions related to the perception of the positive and negative affect, satisfaction with global dimensions of life (e.g., the past, life changes) and individual domains of life, such as work or family [4]. In turn, the eudaimonic tradition emphasized positive mental functioning and human development. According to this approach, a person will be happy only if they live according to the values they recognize, strive to discover the essential aspects of life, and develop the good qualities of both their personality and character [5].

Harmonious passion for a given activity predicts a higher level of psychological well-being [6], also in the area of work [7]. Vallerand [8] noted that passion for a given activity can trigger positive hedonic experiences that, in turn, promote eudaimonic well-being and self-growth. It is also showed that such a synergetic relationship between hedonia and eudaimonia is more likely to happen when passion is harmonious than when it is obsessive [8]. Harmonious passion positively predicts hedonic well-being according to the characteristic by life satisfaction and happiness, while obsessive passion has nothing to do with hedonic well-being [9-11]. Philippe et al. [12] found that harmonious passion led to higher scores in hedonism and eudaimonism as opposed to obsessive passion. Yukhymenko-Lescroart and Sharma [13] indicated that, in contrast to obsessive passion, harmonious passion for work emerged as a positive predictor of life satisfaction and subjective happiness. Their findings showed that harmonious and obsessive passion for work positively predicted the awareness of life purpose and altruistic purpose [13]. These results emphasize the importance of incorporating both hedonistic and eudaimonic approaches in the operationalization of well-being in research on passion for work.

Most studies on passion for work conducted to date have used a variable-centered approach to understand the relationship between passion and other variables. However, variable-centered approaches also have their own inherent limitations. Variable-centered analyzes implicitly assume that respondents belong to the same group and ignore the possibility that these participants may come from different sub-populations. In studies on passion, which used a variable-focused approach, inconsistent results were obtained, especially with regard to the dependence of obsessive passion. For example, meta-analytic findings indicate no association between obsessive passion and burnout when estimated with bivariate correlations, but a positive association with partial correlations, which control for the overlapping variance of harmonious passion and obsessive passion [10].

To solve this problem, person-centered approaches make it possible to identify homogeneous subgroups of participants based on common characteristics, in this case, passion for work. Overall, person-centered analytics can provide a more holistic understanding of the role of passion for work and complement variable-focused research by examining the interaction of both dimensions of that passion. They are suitable for

testing different passion for work configurations, and then their consequences.

The approach in which the indicated limitations were minimized was developed by Bélanger and Ratelle [14] in the context of passion for studying, or by Li et al. [15] with reference to work. In the context of passion for studying, Bélanger and Ratelle [14] distinguished 4 profiles of passionate people:

- high: high harmonious passion and obsessive passion.
- moderate-low: moderate harmonious passion and low obsessive passion,
- low: low harmonious passion and obsessive passion,
- optimal: high harmonious passion and low obsessive passion.

Li et al. [15] identified 3 passion for work profiles:

- dual passion,
- pro-harmonious passion, and
- pro-obsessive passion.

In the study by Li et al. [15], it was found that employees with a dual passion profile showed higher task performance and subjective well-being than participants with the other 2 profiles; participants with a pro-obsessive passion profile were better at task performance, interpersonal performance, and well-being than participants with a pro-harmonious profile [15]. Bélanger and Ratelle [14] showed that, firstly, the lack of passion for studying exposes students to worse academic performance. Developing passion for studying supports the functioning of students, to some extent, but more so if this passion is harmonious. Secondly, harmonious passion (regardless of the result of obsessive passion) supports the optimal functioning of students. Students with high and optimal profiles showed the best indicators of academic performance. However, these 2 profiles showed different levels of academic engagement and academic burnout, with high-profile students reporting the highest engagement and those with the optimal profile reporting the lowest levels of burnout [14].

These results suggest that it is advisable to distinguish the profiles of passionate people, taking into account simultaneously the intensity of harmonious and obsessive passion, rather than distinguishing groups – without passion, harmonious passionates, and obsessive passionates.

In previous studies, a variable-centered approach was used – where the unit of analysis is the variables, and the focus was on the relationship between them [16], which also limited the possibility of including information about the coexistence of passion

dimensions in identity, and did not allow for regarding the level of functioning as their effect. Distinguishing groups of harmonious and obsessive passionates limits the possibility of drawing conclusions about the effects of the minority dimension of passion. Taking into account the findings made so far that harmonious passion promotes adaptation and protects against the negative consequences of engagement [2], it can also protect against the negative consequences of obsessive passion. The presented study aims to fill this gap in research on passion, more specifically, on passion for work.

# The present study

This study explored the role of passion for work in predicting positive and negative indicators of psychological well-being using a person-centered approach. The first goal was designed to identify and describe subgroups of participants with distinct passion for work profiles. While previous research on passion for work has not used a person-centered approach, several passion profiles can be expected, as positive correlations have been found between passion types, suggesting that an individual may experience harmonious passion and obsessive passion at the same time [2]. It is assumed that there will be more than 1 passion profile in the sample of employees.

The second goal was to compare the indicators of psychological well-being (in a hedonistic approach: anxiety and depressive symptoms; eudaimonistic and hedonistic: subjective vitality) as a function of the employee passion profile. So far, it has been shown that harmonious passion predicted positive indicators of individual psychological well-being and functioning, as well as protection against lower psychological well-being and less optimal functioning. Therefore, it was expected that employees with profiles characterized by a high level of harmonious passion for work would show a higher level of psychological well-being than employees with profiles without passion and with a high level of obsessive passion.

# **MATERIAL AND METHODS**

### **Participants**

The study involved 522 respondents, including less than 80% of women, of an average age of 33.82 years (SD = 13.97). As regards education, 74.52% of the respondents had higher education, 21.07% secondary education, 2.87% vocational education, and 0.38% primary education. The remaining respondents did not specify

their education. Less than 50% of the respondents were married, 33.33% were in an informal relationship, and 21.84% were single. The rest were divorced (3.44%) or widowed (0.38%). The respondents worked in various occupations and 64.94% of them occupied managerial positions. The respondents represented various professions, such as teachers, drivers, accountants and sales representatives.

#### **Tools**

The Passion Scale [1,17] in the Polish adaptation by Mudło-Głagolska, Lewandowska and Kasprzak [18] was used to appraise harmonious and obsessive passion for work. It consists of 12 items - 6 for harmonious and 6 for obsessive passion, each of which has been adapted to study passion for work, e.g., "My work is in harmony with other activities in my life" (harmonious passion) or "I have almost obsessive feelings for my work" (obsessive passion). The scale includes 5 additional items measuring the criteria of passion. These items refer to the time devoted to a passionate activity, whether the person likes it, whether it is important to them, whether they describe it as their passion and consider it a part of themselves, e.g., "Work is important to me." For both the scale and the criteria, the answers are given on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). The reliability of the presented study is 0.86 for harmonious passion and 0.79 for obsessive passion.

Psychological well-being can be studied from various perspectives (e.g., hedonic/eudaimonic). Harmonious passion has been shown to predict well-being regardless of the perspective taken and there is evidence of a significant overlap between different indicators of well-being [19]. For these reasons, the aim was to assess the broadly understood well-being using a few short measures.

The anxiety and depression subscales of the *General Health Questionnaire* (GHQ-28) by Goldberg, adapted by Makowska and Merecz [20], were used to appraise the symptoms of anxiety and depression. The GHQ-28 requests participants to indicate how their health in general has been over the past few weeks. Both subscales had 7 items (anxiety, e.g., "Been getting edgy or bad tempered?"; depression, e.g., "Been feeling that life is entirely hopeless?"). All items in each subscale are measured with a 4-point Likert scale (0–3 pts) for assessment. The higher the score, the greater the intensity of experienced difficulties [20]. In the present study, the reliability of the measurement is 0.89 for anxiety and 0.90 for depression.

Subjective vitality was assessed based on the results obtained in the *Subjective Vitality Scale* by Ryan and Frederick [21] in the Polish adaptation by Mudło-Głagolska [22]. It consists of 5 statements relating to the sense of energy and vitality, e.g., "I feel alive and vital." The answers are given on a 7-point Likert scale. In the case of the presented studies, the Cronbach's  $\alpha$  is 0.82.

#### Procedure

The participants were recruited through a website that linked to an online questionnaire. The link to the form was placed in various groups on the social networking site, such as Accounting my passion, Pharmacists, and Construction Forum, with a request to participate in the study. This information contains basic information about the study, e.g., the purpose, the expected time for filling in the form, and how the data will be used. The first page of the online questionnaire contained the informed consent form followed by the passion measurement tools - the Passion Scale, psychological well-being - the anxiety and depression subscales of the General Health Questionnaire (GHQ-28) and the Subjective Vitality Scale. Other variables such as age, gender, education, marital status, and occupation were also measured.

# Statistical analysis

Latent profile analysis (LPA)

The extraction of profiles as part of LPA is conducted using the tidy LPA package of R version 3.6.1, along with the *dplyr* package. Model 1, where the variance is equal and covariance is zero, and model 6, where both of them are varying, were selected to estimate the profiles. Estimating profiles and comparing solutions functions help in finding the optimum number of profiles. Akaike information criteria (AIC), Bayesian information criteria (BIC), entropy and the p-values of the parametric bootstrapped likelihood ratio test (BLRT) were taken into consideration to finally settle for the number of profiles. The AIC and BIC for which smaller values represented a better fit to the data [23]. Furthermore, the p-values of BLRT below 0.05 indicate that there were no statistically significant differences between this model and the precedent (n-1). In this case, a more parsimonious model is preferred [23]. Also, higher entropy values (classification quality; range 0-1) show better separation of profiles. While it provides information about model classification, this value should not be used alone to select the optimal model. Finally, models with profiles

Table 1. Model 1 and model 6 specifications in an online survey in a group of employees (N = 522), the second half of 2020

Variable	AIC	BIC	Entropy	prob_min	prob_max	n_min	n_max	BLRT_p
Model 1								
class 1	3145.48	3162.51	1.00	1.00	1.00	1.00	1.00	
class 2	3051.90	3081.71	0.85	0.81	0.98	0.12	0.88	0.01
class 3	2993.22	3035.80	0.78	0.71	0.96	0.11	0.77	0.01
class 4	2970.60	3025.95	0.75	0.82	0.88	0.07	0.50	0.01
class 5	2976.66	3044.79	0.58	0.01	0.87	0.00	0.45	1.00
Model 6								
class 1	3111.86	3133.16	1.00	1.00	1.00	1.00	1.00	
class 2	3016.16	3063.00	0.58	0.78	0.93	0.32	0.68	0.01
class 3	2997.62	3070.00	0.54	0.75	0.82	0.28	0.37	0.01
class 4	2979.07	3077.00	0.68	0.69	0.86	0.09	0.46	0.01
class 5	2976.73	3100.26	0.65	0.58	0.82	0.01	0.34	0.02

AIC – Akaike information criteria, BIC – Bayesian information criteria, BLRT\_p – a p-value for the bootstrapped likelihood ratio test, entropy – a measure of classification uncertainty, reverse-coded so that 1 reflects complete certainty of classification, and 0 complete uncertainty, n\_max – depending on the most probable profile membership, the number of sample subjects assigned to the largest profile, n\_min – depending on the most probable profile membership, the number of sample subjects assigned to the smallest profile, prob\_min – lowest value of the diagonal of the average latent class probabilities for the most probable class membership, as per the assigned profiles, prob\_max – greatest value of the diagonal of the average latent class probabilities for the most probable class membership, as per the assigned profiles.

 $Model \ 1-equal\ variances\ and\ covariances\ fixed\ to\ 0,\ model\ 6-varying\ variances\ and\ varying\ covariances,\ class-number\ of\ profiles\ extracted,\ may\ be\ defined\ by\ distribution\ parameters\ of\ observed\ variables$ 

Bolded are results of the adopted model.

containing <5% of the sample were rejected. The graphic representation of the profiles was developed using the *plot-profile* function. The estimates of the profiles are obtained using the *get\_estimates* function.

# Contrasting passion profiles

The selected groups of passionate people (in accordance with the profiles distinguished through LPA) were compared in terms of the results of anxiety and depressive symptoms, and subjective vitality. For this purpose, a series of non-parametric Mann-Whitney U tests were conducted.

# **RESULTS**

### **Results of LPA**

Table 1 presents the results of analyzes for solutions from 2 to 5 profiles. In the case of profile 4, the best AIC and BIC indicators were recorded. The entropy value also indicates a fit, although in this case it is not the highest. Its entropy is 0.75, which means that 75% of the cases of the total 522, that is 392 cases, were properly classified into their most probable profile. Exactly 82% of the cases belonging to the lowest profile could be properly classified under this category as the prob\_min is 0.82. Since

prob\_max is 0.88, it means that 88% cases belonging to the higher group were properly classified into its respective category. The number of cases in the lowest profile is 37 as the n\_min is 0.07. The number of cases in the highest profile is 261. The goodness of fit between the model and the data is very significant with a p-value of <0.05 at 0.01 for both the estimate and BLRT.

When the number of parameters is high, the model estimation is the best. Due to the high values of entropy, and the high probability of the proper assignment of passionate employees to classes in the case of the model with 2 and 3 profiles [15], it was also decided to analyze them in more detail (Table 1). All the estimates of the least strict (model 1) and the most strict (model 6) specifications show that the number of estimated classes or profiles for the present data is 4. Focusing on the solution with 4 profiles, this is apparent since the AIC and BIC values of model 6 estimating 4 profiles are higher than the AIC and BIC values of model 1 estimating 4 profiles. However, the entropy of model 6 is lower when compared to model 1. Both the model results are significant at a p-value of BLRT equal to 0.01.

They are termed as:

 high-moderate (profile 1: high harmonious passion for work and moderate obsessive passion for work),

**Table 2.** Passion for work scores in individual classes (profiles) in a group of employees (N = 522), the second half of 2020

Class	Passion for work (M)					
	harmonious	obsessive				
1	5.37	3.31				
2	5.60	5.00				
3	5.19	2.05				
4	2.78	1.83				

Explanations as in Table 1.

- high (profile 2: high harmonious passion for work and obsessive passion for work),
- optimal (profile 3: high harmonious passion for work and low obsessive passion for work), and
- low (profile 4: low harmonious passion for work and low obsessive passion for work).

In the case of 2 profiles, one could select passionates with: 1) a low score for harmonious passion and a low score for obsessive passion, and 2) a high score for harmonious passion and a low score for obsessive passion, while in the case of 3 profiles: 1) a low score for harmonious passion and a low score for obsessive passion, 2) a high score for harmonious passion and a low score for obsessive passion, and 3) a high score for harmonious passion and an moderate score for obsessive passion.

The lowest percentage of passionates was found among employees with high results of both harmonious passion for work and obsessive passion for work, while the highest percentage of passionates among those with a high result of harmonious passion for work and a moderate result of obsessive passion for work. The most popular (model 1) estimates will be used for reporting the final results.

The means of harmonious and obsessive passion for a particular profile under a specific model, or for a range of profiles, are shown in Table 2. The variance for harmonious passion was 0.696, and for obsessive passion 0.285.

## Comparison of psychological well-being results

Descriptive analyses were carried out (Table 3). The results of correlation analyses indicated that harmonious passion and obsessive passion were relatively weakly correlated (r = 0.27, p < 0.05). The analysis showed negative average correlations between harmonious passion for work, and anxiety and depression symptoms, and positive average correlations with subjective vitality. A positive weak relationship was found between obsessive passion for work and subjective vitality. Gender was not considered in subsequent analyses [16].

In the next step, using the Mann-Whitney U test, the results regarding well-being in individual groups of passionates were compared. The analysis showed that passionates with a high score for harmonious passion and a moderate score for obsessive passion achieved a significantly lower score of subjective vitality than passionates with a high score for harmonious passion and a low score for obsessive passion (Z = 3.38, p < 0.001), and a significantly lower score for anxiety (Z = -2.37, p = 0.01) and depressive symptoms (Z = -2.88, p = 0.004), and a higher score for subjective vitality (Z = 5.05, p < 0.001), than employees with low scores in both dimensions of passion. Additionally, employees with low results of harmonious passion and obsessive passion achieved significantly higher results of anxiety and depressive symptoms, and lower subjective vitality than people with high results of both harmonious passion and obsessive passion (anxiety: Z = 2.47, p = 0.01; depression: Z = 2.41, p = 0.01; subjective vitality: Z = -4.27, p < 0.001) and a high result of harmonious passion and a low result of obsessive passion (anxiety: Z = 3.09, p = 0.001; depression: Z = 3.83, p < 0.001; subjective vitality: Z = -3.05, p < 0.002). The results are presented in Table 4.

#### DISCUSSION

The aim of this study was to describe passion for work by distinguishing separate profiles of respondents using LPA. Previous research has shown the role of passion

Table 3. The relationship between passion for work and psychological well-being in a group of employees (N = 522), the second half of 2020

Passion for work -	Pearson's r							
Passion for work	anxiety symptoms	depressive symptoms	subjective vitality					
Harmonious	-0.34***	-0.35***	0.35***					
Obsessive	0.08	0.06	0.16***					

<sup>\*\*\*</sup> p < 0.001.

		Psychological well-being								
Profile	1		2		3		4		Significant difference	
	M	SD	M	SD	М	SD	M	SD		
Anxiety symptoms	8.07	4.87	7.06	4.46	7.42	4.88	9.84	5.20	1:4, 2:4, 3:4	
Depressive symptoms	3.09	4.14	2.47	3.29	2.49	3.83	5.24	5.49	1:4, 2:4, 3:4	
Subjective vitality	23.53	5.50	24.83	4.56	21.68	5.47	18.40	6.53	1:3, 1:4, 2:3, 2:4, 3:4	

Table 4. Comparison of the results of psychological well-being in individual profiles of work passionates (Mann-Whitney U test) in a group of employees (N = 522), the second half of 2020

for work, but very little scientific attention has been paid to understanding and unequivocally testing whether having specific configurations of harmonious and obsessive passion is actually related to well-being. The current study provides an additional contribution to the literature by identifying 4 passion for work profiles. Therefore, it seems crucial to understand how the 2 dimensions of passion for work connect in people and what the consequences are.

Latent profile analysis allowed for distinguishing 4 profiles of work passionates, termed as:

- high-moderate (profile 1: high harmonious passion for work and moderate obsessive passion for work),
- high (profile 2: high harmonious passion for work and obsessive passion for work),
- optimal (profile 3: high harmonious passion for work and low obsessive passion for work), and
- low (profile 4: low harmonious passion for work and obsessive passion for work).

The least numerous groups of passionates are those with a high result of harmonious passion and obsessive passion, simultaneously. In turn, the most numerous are employees with a high result of harmonious passion and an average result of obsessive passion.

Contrary to the reports by Li et al. [15], in the Polish sample, there was no profile of passionates in which the dimension of obsessive passion dominated. A high score for obsessive passion generally accompanies a high score for harmonious passion. This result emphasizes the limitations of analyzing only the relationship between passion and its consequences or distinguishing harmonious and obsessive passionates on the basis of the predominant dimension of passion because, e.g., in this case, the negative consequences of obsessive passion are minimized by the impact of an equally high result of harmonious passion. The lack of a profile with high obsessive passion and low harmonious passion also made it impossible to verify the assumption

that better psychological well-being is characteristic of highly harmonious employees compared to employees with high obsessive passion.

The lack of passion for work exposes employees to a greater sense of inferior psychological well-being. Indeed, employees with a passion profile defined as low (low harmonious passion for work and low obsessive passion for work) achieved the lowest score of subjective vitality, and the highest score of anxiety and depression symptoms, which suggests that developing passion supports the functioning of employees, to some extent, but more so if passion is harmonious. Secondly, harmonious passion for work (regardless of the result of obsessive passion) protects against anxiety and depression symptoms. A high or average result of obsessive passion along with high harmonious passion promotes subjective vitality. However, it should be remembered that, in the analyzed sample of data, a small percentage were employees with obsessive passion, hence its low differentiating power.

The presented study confirmed the rightness of analyzing passion for work in terms of its profiles and consequences they bring about. Hence, when employees perceive their passion as integrated into their identity, love it and invest a lot of time and energy in it [2], they report more positive indicators of psychological well-being than when work is not their passion. The presented results confirmed that harmonious passion and obsessive passion may coexist within the identity of an individual [2]. This helps to understand the inconsistent values of the relationship between harmonious and obsessive passion consequences. In this study, both types of passion were hardly correlated, which also coincides with other research results in the context of work [24]. The identification of passion profiles made it possible to understand the inconsistent results regarding the relationship between obsessive passion for work and psychological well-being. Indeed, the correlations between obsessive

<sup>1 -</sup> high harmonious passion for work and moderate obsessive passion for work (N = 261), 2 - high harmonious passion for work and high obsessive passion for work (N = 37),

<sup>3 -</sup> high harmonious passion for work and low obsessive passion for work (N = 169), 4 - low harmonious passion for work and low obsessive passion for work (N = 55).

passion and psychological well-being indicators seem to depend on the level of harmonious passion of individuals, which may protect them against the negative consequences associated with obsessive passion. This suggests that the protective role of harmonious passion depends on its coexistence with obsessive passion.

The obtained results could provide a clue and motivation for employers to create conditions conducive to the development of harmonious passion. For example, Dubreuil et al. [25] implemented an intervention program in which workers were encouraged to use their strengths at work. Using personal strengths at work led to an increase in harmonious passion, and eventually to an increase in psychological well-being and work efficiency. Similarly, providing employees with support regarding their autonomy ensures that their psychological needs (autonomy, competence and relationship) are fulfilled, which in turn fosters harmonious passion [26].

# Limitations and future study

The presented study is not free from limitations. Firstly, this study used a cross-sectional design that only allows for the comparison of psychological well-being results across groups but prevents any inference about causal relationships between these variables. Secondly, the sample was predominantly female, and the results may not be generalized to men. Therefore, replication with more differentiated samples is necessary. Thirdly, the survey was conducted online. However, it is noteworthy that this study confirmed the high reliability of the respondents' answers and, in addition to the previous reports in the case of the *Passion Scale*, the equivalence of the paper-pencil and online measurements can be observed [18].

In future research, passion for work profiles should be identified by means of a longitudinal design. This will allow for determining if passion profiles change or remain stable over time, and for examining the relationship between passion and functioning at work. This would allow for the identification of periods in the career path that are more important for supporting the development or sustaining passion for work. The longitudinal project would also help identify the antecedents of passion for and functioning at work, as well as observe the coexistence of types of passion among employees. In addition, it is worthwhile to focus on how given passion for work profiles differentiate behavior at work, including productive behavior, counterproductive behavior and job crafting. Moreover, it seems valuable to develop an approach that takes into account the coexistence of harmonious and obsessive passion in the identity of a person in the educational context of both younger and older students.

#### **CONCLUSIONS**

It is helpful to use a person-centered approach when researching passion for work. It has been shown that especially high results of harmonious passion are conducive to well-being. The least beneficial is the lack of passion. Future research should focus on the differentiation of well-being outcomes by passion profiles in other sectors, e.g., in education or other occupational groups – analyzing passion for work profiles in different occupations or other age groups. It should also include analyzing passion profiles in general in a sample of retired people.

#### REFERENCES

- 1. Vallerand RJ, Blanchard C, Mageau GA, Koestner R, Ratelle C, Léonard M, et al. Les passions de l'âme: On obsessive and harmonious passion. J Pers Soc Psychol. 2003;85(4): 756–767. https://doi.org/10.1037/0022-3514.85.4.756.
- Vallerand RJ. The Psychology of Passion: A Dualistic Model. Oxford University Press. 2015. https://doi.org/10.1093/acprof:oso/9780199777600.001.0001.
- 3. Lafrenière M-AK, Bélanger JJ, Sedikides C, Vallerand RJ. Self-esteem and passion for activities. Personal Individ Differ. 2011;51(4):541–544. https://doi.org/10.1016/j.paid. 2011.04.017.
- 4. Diener E. Subjective well-being. Psychol Bull. 1984;95(3): 542–575. https://doi.org/10.1037/0033-2909.95.3.542.
- 5. Ryff CD. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. J Pers Soc Psychol. 1989;57(6):1069–1081. https://doi.org/10.1037/0022-3514.57.6.1069.
- Vallerand RJ. From motivation to passion: In search of the motivational processes involved in a meaningful life. Can Psychol. 2012;53(1):42. https://doi.org/10.1037/a0026377.
- 7. Moe A. Harmonious passion and its relationship with teacher well-being. Teach Teach Educ. 2016;59:431–437. https://doi.org/10.1016/j.tate.2016.07.017.
- 8. Vallerand RJ. On the synergy between hedonia and eudaimonia: The role of passion. Handbook of eudaimonic well-being. Springer, Cham. 2016:191–204.
- 9. Carpentier J, Mageau GA, Vallerand RJ. Ruminations and flow: Why do people with a more harmonious passion experience higher well-being? J Happiness Stud. 2012;13(3): 501–518. https://doi.org/10.1007/s10902-011-9276-4.

- Curran T, Hill AP, Appleton PR, Vallerand RJ, Standage M. The psychology of passion: A meta-analytical review of a decade of research on intrapersonal outcomes. Motiv. Emot. 2015;39(5):631–655. https://doi.org/10.1007/ s11031-015-9503-0.
- 11. Rousseau FL, Vallerand RJ. An examination of the relationship between passion and subjective well-being in older adults. Int J Aging Hum Dev. 2008;66(3):195–211. https://doi.org/10.2190/ag.66.3.b.
- 12. Philippe FL, Vallerand RJ, Lavigne GL. Passion does make a difference in people's lives: A look at well-being in passionate and non-passionate individuals. Appl Psychol Health Well-Being. 2009;1(1):3–22. https://doi.org/10.1111/j.1758-0854.2008.01003.x.
- 13. Yukhymenko-Lescroart MA, Sharma G. The relationship between faculty members' passion for work and well-being. J Happiness Stud. 2019;20(3):863–881.
- 14. Bélanger C, Ratelle CF. Passion in University: The Role of the Dualistic Model of Passion in Explaining Students' Academic Functioning. J Happiness Stud. 2020;22(5): 2031–2050. https://doi.org/10.1007/s10902-020-00304-x.
- 15. Li J, Zhang J, Shao B, Chen C. A latent profile analysis of work passion: structure, antecedent, and outcomes. Pers Rev. 2019;49(3):846–863. https://doi.org/10.1108/PR-04-2019-0145.
- Bergman LR, Magnusson D. A person-oriented approach in research on developmental psychopathology. Dev Psychopathol. 1997;9(2):291–319. https://doi.org/10.1017/ S095457949700206X.
- 17. Marsh HW, Vallerand RJ, Lafrenière M-AK, et al. Passion: Does one scale fit all? Construct validity of two-factor passion scale and psychometric invariance over different activities and languages. Psychol Assess. 2013;25(3):796–809. https://doi.org/10.1037/a0032573.
- 18. Mudło-Głagolska K, Lewandowska M, Kasprzak E. Adaptacja i walidacja narzędzia do badania pasji harmonijnej

- i pasji obsesyjnej: Passion Scale Marsha i współpracowników. Przeglad Psychol. 2019;62(1):59–75. Polish.
- 19. Ryan RM, Deci EL. On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. Annu Rev Psychol. 2001;52(1):141–166. https://doi.org/10.1146/annurev.psych.52.1.141.
- 20. Makowska Z, Merecz D. Polska adaptacja kwestionariuszy ogólnego stanu zdrowia Davida Goldberga: GHQ-12 i GHQ-28. In: Ocena Zdrowia Psychicznego Na Podstawie Badań Kwestionariuszami Davida Goldberga. Podręcznik Dla Użytkowników Kwestionariuszy GHQ-12 i GHQ-28. Łódź: Instytut Medycyny Pracy; 2001. p. 191–264. Polish.
- 21. Ryan RM, Frederick C. On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. J Pers. 1997;65(3):529–565. https://doi.org/10.1111/j.1467-6494.1997.tb00326.x.
- 22. Mudło-Głagolska K. Polska adaptacja narzędzia do badania subiektywnej witalności w ujęciu Ryana i Frederick. Stud Psychol Theor Prax. 2020;20(1):21–40. http://doi.org/10.21697/sp.2020.20.1.02. Polish.
- 23. Morin AJS, JCK Wang. A gentle introduction to mixture modeling using physical fitness performance data. John Wiley & Sons. 2016:183–209.
- 24. Birkeland IK, Buch R. The dualistic model of passion for work: Discriminate and predictive validity with work engagement and workaholism. Motiv Emot. 2015;39(3): 392–408. https://doi.org/10.1007/s11031-014-9462-x.
- 25. Dubreuil P, Forest J, Courcy F. From strengths use to work performance: The role of harmonious passion, subjective vitality, and concentration. J Posit Psychol. 2014;9(4):335–349. https://doi.org/10.1080/17439760.2014.898318.
- Lalande D, Vallerand RJ, Lafrenière M-AK, et al. Obsessive passion: A compensatory response to unsatisfied needs. J Pers. 2017;85(2):163–178. https://doi.org/10.1111/jopy.12229.