Development and Validation of the Professional Self-Fulfilment Questionnaire

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The aim of this study was to develop a method for assessing professional self-fulfilment. The research comprised of three stages. In the first stage, the content of the personal self-fulfilment and professional self-fulfilment was defined. Five main attributes of internal professional self-fulfilment and five main attributes of external professional self-fulfilment were determined, which together formed the overall structure of professional self-fulfilment Questionnaire. In the second stage, the 30-item Ukrainian-version of the Professional Self-Fulfilment Questionnaire (PSFQ) was developed, which provided quantitative indicators for assessing an individual's professional self-fulfilment, levels of internal and external professional self-fulfilment and manifestations of 10 basic attributes of professional self-fulfilment. In the third stage, the PSFQ was standardised and validated; the sample consisted of 368 (120 men; 248 women) Ukrainian-speaking respondents of different age groups and professions. The PSFQ had high internal consistency ($\alpha = .90$) and competitive validity. Practical implications of the PSFQ are discussed.

Keywords. Professional self-fulfilment, personal self-fulfilment, self-actualisation, psychological assessment, professional growth

The first research on the phenomenon of self-fulfilment began appear in scientific journals in the late 1960s to mid-1970s. Kelly (1975) and Sobosan (1977) explored the religious and philosophical aspects of self-fulfilment, Burgess (1975) and Kovacs (1977) examined its importance in nurses' training and work, and Glatthorn (1969) researched relevance of self-fulfilment to the education of university students. The majority of subsequent self-fulfilment studies organised by Baygi et al. (2017), Eckenfels (1997), Ghanizadeh et al. (2019), Loginova (2017), Mikhailova et al. (2015), Popov (2017), Shutenko et al. (2017), and Shutenko et al. (2018) were focused

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mainly on university students' self-fulfilment. Most studies investigating some aspects of professional self-fulfilment, except the studies about nurses' self-fulfilment, have appeared only relatively recently and these aspects were reflected only in few works (e.g., Bulatova & Nizamova, 2019; Byundyugova & Kornienko, 2015; Kokun, 2014, 2015; Oliveira-Silva et al., 2019; Vedernikova & Shilov, 2013). This is a major drawback in studies on self-fulfilment, as professional self-fulfilment is one of the most important forms of personal self-fulfilment for most people. In this regard, we substantiate below in the article the importance of modern people's professional self-fulfilment and the necessity of a professional self-fulfilment assessment technique.

The Importance of Professional Self-Fulfilment for Modern Society

Gewirth (1998), one of the most famous researchers on self-fulfilment, convincingly argued that the meaning of a good human life should be in searches for self-fulfilment. However, today, the issues of self-fulfilment, personal efficiency, and competitive performance, as rightly pointed out by Byundyugova and Kornienko (2015), have become even more critical because of an increased speed of life, the need for complicated processing of large informational volumes and high competition, particularly in professional area. Ivtzan et al. (2013) emphasized that individual growth was championed and cultivated in the modern society and the question on what allows people to progress toward advanced stages of self-fulfilment became interesting to both employers and psychologists. Mikhailova et al. (2015) considered impossible an individual's innovative activities without existing goals, values, and motives of self-fulfilment.

Professional self-fulfilment has attracted increased attention due to rapid changes in the world and the professional sphere. Globalisation, financialization and organisational changes are the phenomena causing significant changes in the content and methods of work in many professions (Allan et al., 2019; Choroszewicz & Adams, 2019; Noordegraaf, 2016). In addition, Byundyugova and Kornienko (2015) considered changes in social and economic relationships to be especially significant. Bulatova and Nizamova (2019) noted that social structures and institutions have tended to become more flexible, mobile, and changeable and are characterized by instability and insecurity. Accordingly, the labour practices, professional trajectories and careers of young people have also become unstable.

Therefore, research on the phenomenon of professional self-fulfilment is both necessary and challenging due to accelerated

scientific and technological progress and the rapid economic, social and spiritual transformations taking place in modern society. Such research should help create meaningful lifelong guidance for professionals in different specialties to find and strengthen personal meaning in terms of professional self-fulfilment.

Development of Professional Self-Fulfilment Assessment Technique

Even if the phenomenon of professional self-fulfilment has been studied to some extent in scientific research, the methods for its assessment have not yet been developed, and proper experimental studies have not been conducted. The methods used in self-fulfilment studies with different samples have assessed the manifestations of this phenomenon rather indirectly. For example, Baygi et al. (2017) and Ghanizadeh et al. (2019) assessed self-fulfilment with the Measurement of Actualization of Potential (MAP) instrument, which is composed of five sub-scales, that is, openness to self, openness to others, openness to life, adaptability, and autonomy. However, these sub-scales measure not an individual's self-fulfilment, but certain personal qualities that can only be considered possible internal preconditions for self-fulfilment. In their study of self-fulfilment, Ivtzan et al. (2013) used the Personal Orientation Inventory, which is intended to measure self-actualisation with 10 sub-scales including self-actualising value, existentiality, feeling reactivity, spontaneity, self-regard, self-acceptance, nature of man, synergy, acceptance of aggression, and capacity for intimate contact. However, given that self-actualisation and self-fulfilment are far from identical concepts, these sub-scales (like those in the MAP) can also only be considered possible preconditions for self-fulfilment.

Shutenko et al. (2018) studied self-fulfilment with a survey consisting of several open-ended questions; however, it is almost impossible to determine self-fulfilment quantitatively for each respondent. The only tool that has recently been developed for professional self-fulfilment research is the Professional Fulfilment Scale (Oliveira-Silva et al., 2019), which consists of only four questions. In our view, this scale cannot be regarded as a full-fledged technique for professional self-fulfilment assessment because it considers only one aspect of this phenomenon; namely, achievement of career goals.

Thus, given the existing strong need expressed by contemporary investigators in research on professional self-fulfilment and the necessity for a technique for its assessment, the present study aims to

determine the content and structure of professional self-fulfilment and to develop a technique assessing this phenomenon. The proposed Ukrainian-language version of the 30-item Professional Self-Fulfilment Questionnaire can be widely used in studies on professional self-fulfilment not only with Ukrainian-speaking specialists but also all over the world. The proposed English-language text of PSFQ creates additional preconditions for its wide use.

Method

Basing on the above aim to determine the content and structure of professional self-fulfilment and to develop a technique for its assessing, the present study was fulfilled in three stages. At the first stage, the scientific literature in the field of self-fulfilment was analytically reviewed to determine the main features of this phenomenon and to substantiate the core concepts of personal and professional self-fulfilment. At the second stage, we developed the 30-item Professional Self-Fulfilment Questionnaire, using the general scheme of test development (Kokun, 2021; Lane et al., 2015), which provided quantitative and qualitative indicators assessing an individual's professional self-fulfilment, levels of internal and external professional self-fulfilment, and manifestations of 10 basic attributes of professional self-fulfilment. At the third stage, the Ukrainian-language version of the PSFQ was standardised and validated.

Sample

In total, 937 skilled Ukrainian-speaking respondents from different countries (mainly from Ukraine) of all ages and professions participated in the online survey. However, only 368 respondents including 120 men and 248 women aged 19 to 68 years ($M = 30.24$, $SD = 12.02$) filled out all proposed questionnaires and were thus ultimately selected for inclusion in the results. The general characteristics of the participants are described in Table 1.

Measures

The Ukrainian-language version of the PSFQ was used in the above-mentioned remote online survey. In order to check PSFQ competitive validity, Ukrainian-language versions of such well-known methods as Personal Orientation Inventory (Shostrom, 1986) and Self-Efficacy Scale (Schwarzer & Yerusalem, 1995) were used.

Table 1

General Characteristics of the Study Participants (N = 368)

Characteristic		n	%
Gender	Men	120	32.60
	Women	248	67.40
Age group	19–25	104	28.30
(years)	25–30	84	22.80
	30–40	104	28.30
	40–50	56	15.20
	50 and older	20	5.40
Professional	up to 1	53	14.10
experience	1–5	102	27.70
(years)	5–10	75	20.40
	10–20	79	21.50
	20 and more	59	16.00
Professions	Skilled people in "person-person" professions (teachers, managers, medical staff)	165	44.80
	Service professionals (hairdressers, waiters, cashiers)	62	16.80
	Skilled people in "person-sign" professions (accountants, editors, programmers)	60	16.30
	Skilled people in creative professions (artists, writers, designers)	14	3.80
	Skilled people in "person-equipment" professions (engineers, flight engineers, logistics)	36	9.80
	Specialists in working professions (mechanics, turners, locksmiths)	31	8.40
Presence of	Subordinates	118	32.10
Subordinates	No subordinates	250	67.90

Ethics

All participants were informed that their participation in the study was voluntary and that they could refuse to participate or withdraw from the study at any time. Participants were informed that there were no right or wrong answers and were encouraged to respond candidly. Complete confidentiality was assured, and only de-identified data was used in the statistical analysis.

Procedure

The Ukrainian-language version of the PSFQ was standardised and validated basing on the data obtained with a online survey. An online survey was conducted using the Ukrainian version of the

trilingual website http://prof-diagnost.org. The survey data were used to standardize and validate the PSFQ.

Demographically general data about respondents, such as gender, age, profession and whether they had subordinates in the workplace. Participants were motivated to participate in the study by the automatic presentation of their results on the PSFQ, which was accompanied by a psychological and professional interpretation.

Results

Descriptive statistics (mean and standard deviation), independent sample *t*-tests, Exploratory Factor Analysis and Cronbach's alpha were used to analyse the data. The data was normally distributed according to the one-sample Kolmogorov–Smirnov test.

Analysis of Forms, Attributes and Conditions of Self-fulfilment

Gewirth (1998) emphasized that self-fulfilment has an individual as well as an important social dimension. The kind of society in which a person lives strongly affects the character of the self-fulfilment that they can achieve. As Vedernikova and Shilov (2013) pointed out, the problem of human self-fulfilment can be researched at three levels in the social sciences and humanities; questions about the essence of a human being and the subject matter of the self-fulfilment process are solved at the philosophical level, as are questions related to the ways that an individual can experience self-fulfilment under unique social and cultural conditions. Finally, according to these authors, both personal qualities and the specific conditions of the environment which allow for an individual's efficient self-fulfilment are examined at the psychological level.

According to Maslow's hierarchy of needs, self-actualisation is the desire for self-fulfilment, namely the tendency for one to become everything that one can become (Brownie & Horstmanshof, 2012). Gewirth (1998) examined two modes of self-fulfilment namely aspiration-fulfilment and capacity-fulfilment. Haybron (2008), in contrast, identified the types of self-fulfilment as desire-fulfilment, nature-fulfilment and capacity-fulfilment, while Mikhailova et al. (2015) selected three possible types of self-fulfilments the most important; firstly, active self-fulfilment, characterized by successful self-expression in a variety of activities due to high professional competence; secondly, social self-fulfilment, associated with the implementation of a humanitarian mission and engagement in socio-economic, socio-political, socio-educational or other socially useful

activities; and thirdly, personal self-fulfilment, referring to promoting spiritual growth and the first stages of personal potential development (responsibility, curiosity, sociability, diligence, perseverance, initiative, knowledge, creativity, morality, and so on).

Haybron (2008) maintained that self-fulfilment consists partly of authentic happiness and is incompatible with lacking autonomy. Baygi et al. (2017) referred to self-fulfilling attributes as achievement of goals, mastery orientation or mastery goals. Individuals with such attributes perceive challenging tasks not as undefeatable obstacles, but as rewarding and enjoyable undertakings. Self-fulfilment signifies a life well-lived, a life that is deeply satisfying, fruitful, and worthwhile (Gewirth, 1998).

Byundyugova and Kornienko (2015) emphasized that an individual's abilities may be fully fulfilled only if that individual carries out socially important activities and if the fulfilment of such activities is determined not only by external factors (social needs) but by the individual's internal needs. Only in such instances do activities become self-activities and fulfilments of an individual's abilities become self-fulfilment. The result of personal self-fulfilment is an individual's feeling of satisfaction with life as the highest goal and main motive of human conduct, invoking the development of their inclinations and abilities.

Relation of Self-Fulfilment to Similar Concepts

Byundyugova and Kornienko (2015) rightly pointed out that research on the essence of the self-fulfilment phenomenon should take into account its interrelation with and difference from similar notions that is, self-development, self-determination, and self-actualisation and should consider that not all scholars agree that the above concepts are similar. Self-fulfilment and self-actualisation, which are much alike, are treated as synonymous in some scientific work. Maslow's (1998) hierarchy of needs identifies four bottom-up deficiency needs (physiological, safety, friendship, and self-esteem) and three top-down being needs (cognitive, aesthetic and self-actualisation or self-fulfilment). The top of Maslow's hierarchy is known as self-actualisation or self-fulfilment (Baygi et al., 2017).

According to Byundyugova and Kornienko (2015), a major difference between self-fulfilment and self-actualisation is that self-actualisation serves as a start-up mechanism for launching self-fulfilment. Gewirth (1998) affirmed that the terms self-fulfilment, self-realisation and self-actualisation signify not only a kind of

reflexive relation but also a favourable development wherein persons achieve goods that are somehow inherent in their natures by making use of certain latent powers. However, Gewirth (1998) also makes some tentative distinctions between these terms; that is self-fulfilment (like self-realisation and self-actualisation) is both a process and a product, self-fulfilment as a process consists of an unfolding of certain implicit or inherent powers and differs from these other concepts in that it is an intrinsic value desired for itself and is marked by choice, creativity, and capacity-development.

Analysis of the Existing Definitions of Self-fulfilment

Gewirth (1998) defined self-fulfilment rather briefly as carrying to fruition one's deepest desires or worthiest capacities. Kerr (2009) described the concept of self-fulfilment more meaningfully as the attainment of a satisfying, well-lived and worthwhile life. For Baygi et al. (2017), self-fulfilment is closely linked to an individual's personal potential, as it is rooted in discovering one's true potential through personal growth and is, to a great extent, intrinsically driven. Stebbins (2016) appropriately introduced the need for sustained efforts to the idea of self-fulfilment, defining self-fulfilment as the process of realising one's potential, talents and tastes through sustained efforts and achievement in an activity.

However, these definitions are not sufficiently complete, since none of them simultaneously cites all essential attributes of self-fulfilment or discusses the content of these attributes together with the features that characterize the manifestations of this phenomenon. We also consider it necessary to emphasize that the definition of self-fulfilment should consider its two forms, external and internal, as characterized by Mikhailova et al. (2015). External self-fulfilment refers to an individual's self-expression in different spheres of life, such as career, sport, arts, academics, politics, and social activities, while internal self-fulfilment describes the cultivation of physical, intellectual, aesthetic, moral and spiritual aspects of an individual's personality.

Professional Self-fulfilment: Analysis of its Content and Attributes

We agree with other researchers that work gives meaning to people's existence, provides them with a sense of normality and enables them to contribute to society and expand their social network (Samson et al., 2009). Of course, as Stebbins (2016) pointed out, self-

fulfilment is also possible in project-based leisure activities; however, such self-fulfilment is significantly more superficial than that achieved in long-term serious pursuits of attractive careers. The criteria for an individual's self-fulfilment in the professional context, according to Byundyugova and Kornienko (2015), included acceptance of one's belonging to a certain professional group; knowledge of one's correspondence to the ideals in one's profession, and to the system of professional roles; acknowledgement in a professional group; knowledge of one's own strengths and weaknesses; possibilities for advancement and zones of potential success or failure; and having an idea of one's place in work-related activities in the future. Vedernikova and Shilov (2013) argued that there are two aspects of a creative self-fulfilment: potential and immediate. The 'potential' aspect consists of professional creativity and essential forces of the personality, whereas the 'immediate' aspect includes the deployment mechanism for personal professional creativity.

Professional self-fulfilment is defined in the existing literature in two ways. The first characterized this phenomenon as a continuous hetero-chronous process of human development in a person's conscious activities over the course of their lifetime (Byundyugova & Kornienko, 2015). Oliveira-Silva et al. (2019), who made the second attempt, described professional self-fulfilment as the perception of having reached one's most important career goals or that one is on the right path to achieving these goals. However, as with the above cases of attempts to define self-fulfilment, these definitions of professional self-fulfilment cannot be regarded as sufficiently comprehensive, given that they do not sufficiently characterize the substantive and professional essence of professional self-fulfilment. Therefore, there is a need to emphasize that the phenomenon of professional self-fulfilment can be considered in both absolute terms (correlating a certain specialist's professional self-fulfilment with some general criteria) and relative terms (reflecting the realisation of the personal-professional potential by a certain specialist with respect to their individual capabilities).

Factors of Personal and Professional Self-Fulfilment

Given the purpose of this study, an analytical review of the existing literature would not be sufficient without addressing the factors involved in personal and professional self-fulfilment. Summer (2017) argued that self-fulfilment depends on self-discovery, which requires a process of conjecture and refutation, a willingness to question and criticize received views, and ability to welcome challenges and criticism to one's views. For Kerr (2009), long-term

self-fulfilment is based on the combination of aspirations and talents. Aspirations, according to Kerr, are powerful and persistent long-range life goals that manifest as robust desires for the achievement of ideals to which an individual ascribes great value.

Mikhailova et al. (2015) argued that the phenomenon of self-fulfilment including as it pertains to educational and professional activities; is inextricably linked to self-development and active management of personal resources, adding that an individual's innovativeness is one of the markers characterising the social performance of self-fulfilment. Ghanizadeh et al. (2019) reported that mindfulness and resilience are positive and significant predictors of self-fulfilment; similarly, Baygi et al. (2017) presumed that self-fulfilment is associated with internal drives such as intrinsic motivation and realisation of one's desired goals. Pigott (2015) identified four types of self-fulfilment drives: a drive for intellectual and affective stimulation (entertainment drive); a drive to expand one's horizons (perspective drive); a drive to make a success of oneself (status drive); and a drive to engage in interaction with others (communication drive).

Byundyugova and Kornienko (2015) noted that, to ensure self-fulfilment, a professional occupation should be attractive and interesting for a self-fulfilling individual, ensure the attainment of general social and individual labour values and maintain the supremacy of labour values in the individual's hierarchy of values. The authors also described the following factors, which form an individual's readiness for self-fulfilment and the need to achieve success (e.g., professional, personal); development of creativity and motivational field of personality; and developed imagination, which expands the horizons of personal activities beyond the limits of individual experience, emphasizes the demonstration of feelings and emotions, and determines a creative professional self-fulfilment style. Finally, Stebbins (2016) maintained that a crucial step in finding self-fulfilment in an activity is acquiring education as background knowledge.

Personal and Professional Self-fulfilment: Attributes, Definitions and Structure

From the above theoretical analysis of the literature, the following general features of personal self-fulfilment are identified including, an existing and sufficiently clear plan of one's own life and a firm intention to realize that plan; constant setting of new goals for oneself according to available opportunities with pronounced need for

self-improvement. It also include implementation of one's personal potential and achievement of one's life goals along with recognition of one's personal achievements by one's social entourage. Accordingly, personal self-fulfilment is defined as conscious personal self-development, in the process of which an individual reveals their potential in different life areas, resulting in the ongoing achievement of personally and socially significant results and the formation of their own living space. This definition is based on Ganzen's (1984) systematic approach to definitions of psychological concepts. According to this approach, unfolded definitions should consist of three parts, each of which should have a specific function and a clear structure. These three components include the essential features of the defined concept (here, conscious personal self-development); groups of words that reveal the meanings of the essential features set forth in part 1 (in the process of which an individual reveals their potential in different life areas); and attributes that characterize the manifestations of the defined concept (resulting in the ongoing achievement of personally and socially significant results and the formation of their own living space).

Personal self-fulfilment, according to present analysis, has two general forms including firstly, external (achievement of socially significant results in different life areas, such as profession, creativity, sport, arts, training, politics, social activities and so on). Secondly, internal (an individual's self-improvement in physical, intellectual, aesthetic, moral, spiritual, and professional aspects). In addition, external self-fulfilment is impossible without the internal form.

The main features of professional self-fulfilment are as follows; 1) a strong need for continuous professional improvement and a project related to one's own professional development; 2) highly implemented personal potential and talents and capabilities in a particular profession; 3) achievement of professional goals and general satisfaction with one's professional achievements; 4) recognition of one's achievements in a professional community and extensive use of one's professional experience and achievements by colleagues; 5) constant setting and achievement of new professional goals; 6) high levels of creativity in professional work; and 7) a formed life-professional space.

Accordingly, professional self-fulfilment can be defined as one of the most important types of personal self-fulfilment. It is characterized by an individual's highly disclosed personal potential in their profession, well-developed capabilities, union with their profession, everyday demand for their professional qualifications, and extensive use of their professional experience and achievements by other

professionals. Therefore, self-fulfilment (including professional self-fulfilment) can act as a goal, a perspective, and a process, a need, and a result. Professional self-fulfilment, like personal self-fulfilment, can also have two interrelated general forms, that is, external (significant achievements in various fields of professional activity); and internal (professional self-improvement, aimed at enhancing professional competence and developing professionally important qualities).

Based on the above theoretical analysis and research goals of the present study (questionnaire design, research, processing and interpretation of the results), five characteristics were determined for internal professional self-fulfilment and five characteristics for external professional self-fulfilment. Together, these characteristics form the overall structure of professional self-fulfilment. The attributes of internal professional self-fulfilment are: 1) the need for professional improvement; 2) an existing project for one's own professional development; 3) predominant satisfaction with one's own professional achievements; 4) continuous setting of new professional goals; and 5) forming one's own life-professional space. The attributes of external professional self-fulfilment are: 1) achievement of one's desired professional goals; 2) recognition of one's professional accomplishments by a professional community; 3) usage of one's specialized professional experience and achievements by colleagues; 4) manifestations of personal potential and capabilities through one's chosen profession; and 5) high levels of creativity in professional work.

Professional Self-Fulfilment Questionnaire

The PSFQ is based on the above two forms of professional self-fulfilment and the corresponding 10 attributes. The PSFQ determines specialists' overall level of professional self-fulfilment, as well as their expression of each of its attributes. It is a 30-item self-report measure. Respondents are asked to rate each item using a 5-point Likert-type scale, ranging from option A = 0, B = 1, C = 2, D = 3, and E = 4. Based on the assessment of the questionnaire, 13 quantitative indicators are calculated. Of these, 10 are the baseline, that is the quantitative indicators for each of the 10 attributes of internal and external professional self-fulfilment. Three additional indicators are summarising; they demonstrate the levels of internal and external professional self-fulfilment and together make up the respondent's overall level of professional self-fulfilment. The results of the exploratory factor analysis (Principal Component with Varimax rotation) for these indicators are presented in Table 2. All obtained values are acceptable and the values of Kaiser- Meyer Olkin sampling

adequacy measure for the three factors were found between .82 and .92. Bartlett's test of Sphericity also attained significant values (χ^2 = 578.01–1624.78; $p < .001$). The total explained variances were found between 55.24 and 64.22.

Table 2

Exploratory Factor Analysis for Indicators of the PSFQ (N=368)

Factors	Indicators	EFA
Factor 1: Internal professional self-fulfilment	1. The need for professional improvement	.83
	2. An existing project for own professional development	.82
	3. Predominant satisfaction with own professional achievements	.68
	4. Continuous setting of new professional goals	.73
	5. Formed own life-professional space	.81
	Total explained variance = 60.12	
Factor 2: External professional self-fulfilment	6. Achievement of desired professional goals	.81
	7. Recognition of professional accomplishments by professional community	.83
	8. Usage of professional experience and achievements by colleagues	.77
	9. Manifestations of personal potential and capabilities through chosen profession	.79
	10. High creativity in professional work	.81
	Total explained variance = 64.22	
Factor 3: Overall level of professional self-fulfilment	1. The need for professional improvement	.77
	2. An existing project for own professional development	.72
	3. Predominant satisfaction with own professional achievements	.68
	4. Continuous setting of new professional goals	.66
	5. Formed own 'life-professional space'	.80
	6. Achievement of desired professional goals	.79
	7. Recognition of professional accomplishments by professional community	.74
	8.Usage of professional experience and achievements by colleagues	.69
	9.Manifestations of personal potential and capabilities through chosen profession	.79
	10. High creativity in professional work	.78
	Total explained variance = 55.24	

The details on these figures and rules for their calculating are given in Table 3.

Table 3

Rules for counting of PSFQ Quantitative Indicators (N=368)

Indicators	Sum of points for questions	Number of items
Overall level of professional self-fulfilment	1–30	30
Internal professional self-fulfilment	1–5, 11–15, 21–25	15
External professional self-fulfilment	6–10, 16–20, 26–30	15
The need for professional improvement	1, 11, 21	3
An existing project for own professional development	2, 12, 22	3
Predominant satisfaction with own professional achievements	3, 13, 23	3
Continuous setting of new professional goals	4, 14, 24	3
Formed own 'life-professional space'	5, 15, 25	3
Achievement of desired professional goals	6, 16, 26	3
Recognition of professional accomplishments by professional community	7, 17, 27	3
Usage of professional experience and achievements by colleagues	8, 18, 28	3
Manifestations of personal potential and capabilities through chosen profession	9, 19, 29	3
High creativity in professional work	10, 20, 30	3

Since the independent sample *t*-tests for the questionnaire scores of men and women were not significantly different, normative data are presented without gender differentiation. The only exception was continuous setting of new professional goals, on which men scored significantly higher ($p < .01$). A one-σ interval was used for normalisation. Cronbach's α for the 10 baseline scales of the questionnaire was .90, indicating high internal consistency.

From the results presented in Table 4, we can see that the four relatively more pronounced attributes of professional self-fulfilment are 'Continuous setting of new professional goals'; 'Manifestations of personal potential and capabilities through chosen profession'; 'The need for professional improvement'; and 'Formed own life-professional space'.

The PSFQ showed sufficiently highly competitive validity. In the same sample that was used for its standardisation ($N = 368$), significant correlations were obtained between its three generalising indicators (overall professional self-fulfilment, internal professional self-fulfilment, and external professional self-fulfilment) and the scales of

the Ukrainian-language adaptation of the Personal Orientation Inventory (Shostrom, 1986). These indicators correlated significantly ($r = .22$–$.71$; $p < .01$–$.001$) with 10 of 12 POI scales (excluding the scales of feeling reactivity and acceptance of aggression). Overall level of professional self-fulfilment had the highest correlation with the scales of self-regard ($r = .71$), self-actualising value ($r = .68$), nature of man ($r = .53$), synergy ($r = .47$), support ratio ($r = .43$) and time ratio ($r = .42$). In addition, the three generalising PSFQ indicators had significant positive relationships ($r = .40$; $p < .01$) with General Self-efficacy Scale (Schwarzer & Jerusalem, 1995)

Discussion

As evidenced by our theoretical analysis, professional self-fulfilment can be considered one of the most important forms of personal self-fulfilment for most people. This fact, in particular, is consistent with the emphasis on the growing importance of professional self-fulfilment made in the works of Byundyugova and Kornienko (2015), Ivtzanet al. (2013) and Mikhailova et al. (2015). We defined professional self-fulfilment as one of the most important forms of personal self-fulfilment, characterized by a specialist's highly disclosed personal potential in their profession; well-developed capabilities; union with their profession; everyday demand for their professional expertise; and extensive use of their professional experience and achievements by other professionals.

However, studies of this phenomenon were not undertaken until relatively recently and are not numerous. Techniques to assess the major components of professional self-fulfilment have not yet been developed, and proper experimental research has not been carried out. The methods used in previous self-fulfilment studies with different samples (Baygi et al., 2017; Ghanizadeh et al., 2019; Ivtzanet al., 2013; Oliveira-Silva et al., 2019) assessed manifestations of this phenomenon either indirectly or very narrowly. Given modern researchers' strong need for studies on professional self-fulfilment, which determines the necessity a technique for its assessment, we have developed the Ukrainian-language version of the Professional Self-Fulfilment Questionnaire, which can be widely used in studies of professional self-fulfilment not only with Ukrainian-speaking specialists, but also all around the world.

The PSFQ includes 30-items and measures 13 quantitative indicators. These indicators are meaningfully based on the five main attributes of internal professional self-fulfilment and five attributes of external professional self-fulfilment identified by us, which together

create the general structure of professional self-fulfilment. The attributes of internal professional self-fulfilment are: 1) the need for professional improvement; 2) an existing project for one's professional development; 3) predominant satisfaction with one's professional achievements; 4) continuous setting of new professional goals; and 5) forming one's own 'life-professional space'. The attributes of external professional self-fulfilment are: 1) achievement of one's desired professional goals; 2) recognition of one's professional accomplishments by a professional community; 3) usage of one's professional experience and achievements by colleagues; 4) manifestations of personal potential and capabilities through one's chosen profession; and 5) high levels of creativity in professional work.

The Ukrainian-language version of the PSFQ was standardised and validated based on the remote study of 368 respondents of all ages and professions. *M* and *SD* were determined for all 13 quantitative indicators of the PSFQ, and quantitative gradations of distribution by five levels: 'Low', 'Below average', 'Average', 'Higher than average' and 'High' were determined for the basic indicators (overall professional self-fulfilment and levels of internal and external professional self-fulfilment).

The PSFQ has high internal consistency ($\alpha = .90$) and competitive validity. Data obtained with the PSFQ correlated closely with self-efficacy and the scales used in the POI. We found close content relationships between data obtained with the PSFQ and self-fulfilment as measured in the studies of Baygi et al. (2017), Byundyugova and Kornienko (2015) and Ghanizadeh et al. (2019), although these studies were based on other methods.

Limitations and Implications

The present study has some notable limitations. Data was collected only from a Ukrainian-language sample of professionals. Consequently, the findings cannot be generalized to professionals, who do not speak this language fluently. Therefore, the PSFQ need to be validated in other languages. The English-language text of the PSFQ created by us and presented in the article provides an opportunity for its adaptation and validation in different languages, and also creates preconditions for its wide use in psychological research with skilled people of various professions. However, since professional self-fulfilment in different professions have its own specifics, it may be necessary to standardize and validate the PSFQ for different professional areas.

Conclusion

This study aimed to define the content and structure of professional self-fulfilment and to develop a technique to assess this phenomenon. Based on the above-described structure of professional self-fulfilment, we developed the 30-item PSFQ, which includes quantitative indicators for the respondent's overall level of professional self-fulfilment, internal professional self-fulfilment, external professional self-fulfilment and 10 basic attributes of professional self-fulfilment. The test standardisation for the Ukrainian-language version of the PSFQ was based on a remote study of 368 respondents of all ages and professions, conducted using a diagnostic website. The PSFQ has good psychometric properties and significant prospects for its adaptation, validation and use in different languages.

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References

Allan, S. M., Faulconbridge, J. R., & Thomas, P. (2019). The fearful and anxious professional: Partner experiences of working in the financialized professional services firm. *Work, Employment & Society, 33*(1), 112-130. doi.10.1177/0950017018793348

Baygi, A. H., Ghonsooly, B., & Ghanizadeh, A. (2017). Self-fulfilment in higher education: Contributions from mastery goal, intrinsic motivation, and assertions. *The Asia-Pacific Education Researcher, 26*(3-4), 171-182. doi.10.1007/s40299-017-0338-1

Brownie, S., & Horstmanshof, L. (2012). Creating the conditions for self-fulfilment for aged care residents. *Nursing Ethics, 19*(6), 777-786. doi.10.1177/0969733011423292

Bulatova, L. Kh., & Nizamova, L. R. (2019). Pre-caritization and labor self-fulfillment of young people: Trends and effects. *Revista Genero & Direito, 8*(5), 529-538. doi.10.22478/ufpb.2179-7137.2019v8n5.48772

Burgess, G. R. (1975). Toward self-fulfilment of the graduate nurse. *The Missouri Nurse, 44*(1), 14-15.

Byundyugova, T., & Kornienko, E. (2015). Personality-related factors of self-fulfillment in professional activities. *Review of European Studies, 7*(3), 1-14.

Choroszewicz, M., & Adams, T. L. (2019). Gender and age in the professions: Intersectionality, meta-work, and social change. *Professions and Professionalism, 9*(2), 134-148.

Eckenfels, E. J. (1997). Contemporary medical students' quest for self-fulfillment through community service. *Academic Medicine, 72*(12), 1043-1050. doi.10.1097/00001888-199712000-00013

Ganzen, V. A. (1984). *System descriptions in psychology*. Leningrad: Leningradskiy University.

Gewirth, A. (1998). *Self-fulfillment*. Princeton: Princeton University Press.

Ghanizadeh, A., Makiabadi, H., & Navokhi, S. A. (2019). Relating EFL university students' mindfulness and resilience to self-fulfilment and motivation in learning. *Issues in Educational Research, 29*(3), 695-714.

Glatthorn, A. A. (1969). Individual self-fulfillment in the large high school. *NASSP Bulletin, 53*(335), 47-56. doi.10.1177/019263656905333507

Haybron, D. (2008). Happiness, the self and human flourishing. *Utilitas, 20*(1), 21-49. doi.10.1017/S0953820807002889

Ivtzan, I., Gardner, H. E., Bernard, I., Sekhon, M., & Hart, R. (2013). Wellbeing through self-fulfilment: Examining developmental aspects of self-actualization. *The Humanistic Psychologist, 41*(2), 119-132.

Kelly, B. (1975). The social dimension of self-fulfilment. *Irish Theological Quarterly 42*(2), 138-143. doi.10.1177/002114007504200205

Kerr, B. A. (2009). Aspiration development and self-fulfilment. In B. A. Kerr (Ed.), *Encyclopaedia of giftedness, creativity, and talent* (pp. 63-65). Thousand Oaks, CA: Sage. doi.10.4135/9781412971959

Kokun, O. (2014). Features and factors of professional self-fulfilment of skilled people. *Social Welfare: Interdisciplinary Approach, 4*(1), 18-30.

Kokun, O. (2015). Professional self-fulfilment of skilled people of different professional groups and specialities. *Social Welfare: Interdisciplinary Approach, 5*(2), 19-32.

Kokun, O. (2021). Testing in mental health research: Professional Hardiness Questionnaire (English-language version). *Medical News, 74*(11, I), 2799-2805. doi. 10.36740/WLek202111121

Kovacs, A. R. (1977). The ideal of self-fulfilment as an educational objective. *The Journal of Nursing Education, 16*(3), 22-24.

Lane, S., Raymond, M. R., & Haladyna, T. M. (2015). *Handbook of test development*. London: Routledge.

Loginova, I. (2017). Two focus interactive learning: Improving the quality of vocational training and the possibility of life self-fulfillment. *SHS Web Conferences, 37*(8), 978-990.

Maslow, A. H. (1998). *Toward a psychology of being*. New York: John Wiley & Sons.

Mikhailova, O. B., Kudinov, S. I., & Jerez, K. G. M. (2015). Value-motivational characteristics of innovativeness as prospects for successful self-fulfillment. *Mediterranean Journal of Social Sciences, 6*(3S2), 105-112. doi.10.5901/mjss.2015.v6n3s2p105

Noordegraaf, M. (2016). Reconfiguring professional work: Changing forms of professionalism in public services. *Administration & Society, 48*(7), 783-810. doi.10.1177/0095399713509242

Oliveira-Silva, L. C., Porto, J. B., & Arnold, J. (2019). Professional fulfillment: Concept and instrument proposition. *Psico-USF, Bragança Paulista, 24*(1), 27-39. doi.10.1590/1413-82712019240103

Pigott, J. (2015). *English learning as a means of self-fulfilment: A grounded theory of language learning behaviour* (Doctoral dissertation). University of Warwick, England. doi:10.13140/RG.2.2.18218.11202

Popov, R. (2017). Self-actualization and self-fulfillment in the context of students' autonomy development within the educational process. *Science and Education, 5*(1), 134-139. doi.10.24195/2414-4665-2017-5-23

Samson, A. A., Lavigne, R. M., & Macpherson, P. A. (2009). Self-fulfilment despite barriers: Volunteer work of people living with HIV. *AIDS Care, 21*(11), 1425-31. doi.10.1080/09540120902814403

Shutenko, A., Shutenko, E., Shadrina, I., Gushchina, A., Ivanischeva, O., & Koreneva, A. (2018). Psychological potentials of modern ICT as a tool for ensuring students' self-fulfilment and personal well-being in university education. *International Journal of Pharmaceutical Research and Allied Sciences, 7*(2), 143-152.

Shutenko, E. N., Boyarinova, I.V., Shapoval, Z.A., Akimova, A. R., & Tsareva, E.V. (2017). Psychological and didactic resources of use of information technologies as tools of students' self-fulfilment in university training. *International Journal of Applied Engineering Research, 12*(24), 15627-15634.

Sobosan, J. G. (1977). Self-fulfilment, asceticism, and the function of authority. *Journal of Religion and Health, 16*(4), 333-340. doi.10.1007/BF01533305

Stebbins, R. (2016). Education for self-fulfilment: Process and context. *Education, 41*(3), 873-887. doi.10.1590/2175-623651738

Summer, T. (2017). Meaning and fulfilment in life: The roles of criticism, self-discovery and autobiography. *Journal of Philosophy of Life, 7*(3), 391-405.

Vedernikova, L.V., & Shilov, S. P. (2013). Fundamental prerequisites for research of teacher's value system as for the creative self-fulfillment in humanities knowledge. *World Applied Sciences Journal, 27*(4), 428-432.