# Polish adaptation of the Psychache Scale by Ronald Holden and co-workers

Jan Chodkiewicz[1], Joanna Miniszewska[1], Dorota Strzelczyk[2],
Krzysztof Gąsior[3, 4]

[1] Department of Health Psychology, Institute of Psychology, University of Lodz
[2] Department of Diagnosis and Psychological Research, University of Social Sciences in Lodz
[3] Department of Social Prevention and Resocialization, Jan Kochanowski University in Kielce
[4] Świętokrzyski Prevention and Education Centre

### Summary

**Aim**. The conducted study was aimed at making a Polish adaptation of the Scale of Psychache by Ronald Holden and co-workers. The scale is a self-assessment method which comprises 13 statements and is designed to assess subjectively experienced psychological pain.

**Methods**. 300 persons were examined – undergraduates and postgraduates of the University of Lodz and the Technical University of Lodz. The group of the study participants consisted of 185 women and 115 men. Moreover, there were examined 150 alcohol addicted men, 50 co-addicted women and 50 major depressive episode (MDE) patients.

**Results**. The Polish version of the Scale is a reliable and valid tool. The exploratory and confirmatory factor analysis has proved the existence of one factor. The internal consistency, assessed on the basis of Cronbach's alpha, equalled 0.93. The method displays positive and statistically significant relationships to levels of depression, hopelessness, anxiety, anhedonia and negative relations to levels of optimism, life satisfaction, and positive orientation. Alcohol addicted men with presently diagnosed suicidal thoughts were characterised by a significantly higher level of psychological pain as compared to alcoholics without such thoughts. A higher level of psychache was also reported in people with depression who have a history of attempted suicide compared with those who have not attempted suicide.

**Conclusions**. The effect of the conducted adaptation works on the Psychache Scale speaks for recommending the method for scientific research and use in therapeutic practice.

**Key words:** psychological pain, the Psychache Scale, Polish adaptation

# Introduction

The notion of psychological pain (emotional pain, mental pain, psychache) appeared in literature on psychopathology, and especially suicidology, in the recent 20 years. It was introduced by an eminent suicidologist Shneidman [1–4] and defined as "the introspective experience of negative emotions such as dread, despair, fear, grief, shame, guilt, frustrated love, loneliness and loss" [2]. Having studied notes by persons who had made a suicidal attempt, Shneidman [1] found that most of them contained an experience of psychological suffering that is hard to bear and also a conviction that death is the only way of cutting off the flow of pain. According to Shneidman [2], the basic source of psychological pain lies in frustration of such crucial needs as love, membership of a group, affiliation, achievements, dominance, and aggression.

A definition of psychological pain is also given by Mee et al. [5, 6], according to them "intense psychological (mental) pain is a feeling which is experienced as unbearable torment. It can be experienced during a psychiatric disorder or a tragic loss such as the death of a child" [6]. These authors also observe a significant role of psychological pain in the genesis of suicidal thoughts and behaviours, citing numerous statements of people suffering from depression [6].

A slightly different approach to psychological pain is presented by Orbach et al. [7, 8], according to them this pain can be described as a subjective experience which is accompanied by the awareness of negative changes in oneself and in one's functioning, together with coexisting negative emotions.

Since the notion of psychological pain was introduced into scientific literature, there have been made several tools for its assessment. The first one was the Psychological Pain Assessment Scale (PPAS) by Shneidman [9], which was based on his own definition of the pain. The method contains projective and narrative elements, and that is why it is referred to as debatable from the methodological point of view, and its interpretation is ambiguous [10, 11]. Another method is the Psychache Scale by Holden et al. [12] which is described in detail in a farther part of this article. This scale is one of the most popular methods of measuring the said construct. The scale is used in numerous researches that deal mainly with the relationship between psychological pain and occurrence of suicidal thoughts and behaviours, both in healthy individuals and those suffering from depression [10, 11, 13, 14]. Another popular tool is the Orbach & Mikulincer Mental Pain Scale (OMMP) [7, 8]. Consistently with the authors' broad conceptualisation of the construct, the method was designed as a multidimensional tool. As a result of the use of statistical analyses, there have remained 44 test items within 9 factors in the final version of the scale. The original version of the tool has good psychometric properties [7]. The last popular method for examining psychological pain is the Mee-Bunney Psychological Pain Assessment Scale (MBPPAS) [6]. On the basis of an original set of statements from notes made by depressive persons, the authors distinguished 10 items that became included in the scale. The method contains a definition of psychological pain which is referred to by examinees while answering the scale questions. Psychometric properties of the tool are good. It is worth noting that beside the methods mentioned above, there are also used analogue scales for assessing

psychological pain where examinees mark its present or past intensity, depending on the instruction [10, 15].

Recently, there has appeared another tool in the subject literature – the Three-dimensional Psychological Pain Scale (TDPPS), constructed by Chinese researchers. The scale, which comprises three factors that deal with painful memories, painful feelings, and pain avoidance, has been used to examine suicidal tendencies in students and persons suffering from depression, yet there have not been published any detailed data on the scale. As the authors say, psychometric properties of the tool are satisfactory [16, 17].

Due to the fact that a growing number of studies indicate a significant role of psychological pain in prediction of suicidal thoughts and behaviours, and also because none of the methods mentioned above has been adapted in Poland, where suicides present a greater and greater problem [18], it has been decided to conduct validation of one of the most popular methods, namely the Psychache Scale by Holden et al. [12].

## Material and method

The validated method was the Psychache Scale by Holden et al. [12]. According to the authors of the scale, it was constructed with use of accurate methodology. Preliminary tests were conducted on 294 people. An initial set of 31 self-description items based on the definition by Shneidman [1, 2] was gradually reduced up, i.a. by eliminating items correlated with the overall result below 0.6, to receive the final version with good psychometric properties. Cronbach's alpha obtained in this way was 0.92. The scale is a self-assessment tool that comprises 13 test items assessed on Likert 5-point scale (from 1 – strongly agree, to 5 – strongly disagree, or from 1 – never to 5 – always). The questions deal with a present experience of psychological pain, difficulties with bearing it, and an impact it exerts upon one's life activity. The obtained results are contained within the range between 13 and 65 points. The higher score the greater intensity of presently experienced psychological pain. The scale is designed for adults. The tool, both in its original version and in further analyses, is characterised by very good psychometric properties – Cronbach's alpha coefficient in varied studies in which the method has been used ranges from 0.90 to 0.99, factor analysis indicates the existence of one factor, and validity of the tool is also high [11, 12, 19–22]. The method displays statistically significant relationships with levels of depression and sense of hopelessness, yet performed statistical analyses indicate that although the constructs partly overlap one another, they still maintain their identities [23–25].

Development of the Polish version of Psychache Scale and statistical analysis

At the first stage, after having obtained the acceptance for adapting the method, two translators made translations from English into Polish. Next, two other translators (one of them is a sworn translator) made back-translation. After comparing the obtained versions, the final version was decided.

In order to validate the Polish adaptation of the Psychache Scale by Holden et al. its reliability and accuracy was calculated. The reliability of the entire method was assessed based on Cronbach's alpha coefficients and calculation of discriminat power of the positions – coefficients of correlation between the theses and the overall result. The construct validity of the scale was verified through the use of exploratory and confirmatory factor analysis. Exploratory factor analysis (EFA) was used to verify the structure of the adapted scale factors, whereas confirmatory factor analysis (CFA) verified the goodness of fit for the data obtained in the factor analysis model. The convergent and discriminant validity of the scale were assessed by the analysis of correlation coefficients between its results and results of selected psychometric tools. Additionally the average scores on a scale achieved in a group of healthy subjects and those who manifest mental disorders and among patients presenting and not presenting suicidal tendencies were compared. The statistical analyses were performed using STATISTICA 10 software.

## Participants

The validation studies of the scale were carried out in autumn 2013 and spring 2014 among undergraduates and postgraduates of the University of Lodz and the Technical University of Lodz. The examined group comprised 380 persons. The examinees filled the questionnaires in groups after finishing their university classes, or individually. Participation in the study was anonymous, voluntary and there was no gratification for that. In a survey which was attached to the method the question asked about undertaken in the past and/or present psychiatric treatment ("Are you currently receiving or have you received psychiatric treatment in the past?"). After deleting questionnaires fulfilled by participants who declared being under psychiatric treatment and incomplete questionnaires, the analysis included results of 300 persons aged 19–54 (M = 23.5, SD = 5.69) – 185 (62%) women and 115 (38%) men.

In order to compare scores on the scale of psychological pain in a group of healthy persons and in persons who display varied disorders in psychological functioning, 150 alcohol-addicted men, 50 co-addicted women who were in therapy in one of addiction therapy centres in Lodz and 50 major depressive episode (MDE) patients (37 women and 13 men) who were hospitalised in psychiatric hospital in Lodz, were additionally examined. The research was approved by the Committee for Bioethics of Scientific Research at the University of Lodz (7/KBBN-UŁ/I/2014).

## Methods used in the validation study

In the validation study the following methods were used:
–   Beck Depression Inventory (BDI) [26], in Polish adaptation by Parnowski and Jernajczyk [27];
–   Beck Hopelessness Scale (BHS) [28], in Polish adaptation by Oleś and Juros [29];

- Hospital Anxiety and Depression Scale (HADS) [30], in Polish adaptation by Majkowicz, de Walden-Gałuszko and Chojnacka-Szawłowska [31];
- Snaith–Hamilton Pleasure Scale (SHAPS) [32], in Polish adaptation by Chodkiewicz and Miniszewska [33];
- Life Orientation Test (LOT) – [34], in Polish adaptation by Juczyński [35];
- The Satisfaction With Life Scale (SWLS) [36], in Polish adaptation by Juczyński [35];
- The Positivity Scale (PS) [37], in Polish adaptation by Łaguna, Oleś and Filipiuk [38].

The psychometric properties of the Polish adaptations of these methods allow for using them in the study [27, 29, 31, 33, 35, 38].

## Results

Computations were started with finding basic data regarding distribution of the results.

The results are presented in Table 1. Analyses were made on results obtained in the group of students (n = 300).

Table 1. **Distribution of results obtained in the Psychache Scale (n = 300)**

|  | M | Min. | Max. | SD | Skewness | Kurtosis | K-S* |
|---|---|---|---|---|---|---|---|
| Psychache Scale | 27.41 | 13.0 | 55.0 | 9.72 | 0.48 | -0.31 | d = 0.06[1] |

Source: own study; * the Kolmogorov-Smirnov test; [1] p > 0.10

The indicators of skewness and kurtosis in the adapted method had satisfactory values; they did not exceed the level of 1. Also the result obtained using the Kolmogorov-Smirnov test with the Lillefors amendment (p < 0.10) indicates the scores distribution close to the normal distribution. It is interesting that studies among Canadian students (n = 587) displayed a lower level of psychological pain (M = 21.91, SD = 9.47) [23]. Results lower (M = 20.69, SD = 8.45) than the ones obtained in the current research were characteristic also for another large (n = 2974) group of students from Canada [25].

While analysing the obtained data, there was made a comparison of results of men and women – women achieved slightly higher scores, yet the difference was not statistically significant (women: M = 28.77, SD = 9.71; Men: M = 26.00, SD = 8.47, t = 1.46, p = 0.17).

## The construct validity – factor structure of the Psychache Scale

In order to verify the internal structure of the tool, there were used both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). To make indispensable calculations, the data from the whole sample (n = 300) were divided randomly to two

equal subsets (n = 150). In the first subset there was made the exploratory analysis, in the second one – the confirmatory analysis.

Before starting the analyses, the accuracy of selection was checked using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Its value (KMO = 0.949) and the Bartlett's indicator of Sphericity = 4365.8998 (p < 0.0001) indicate that the use of factor analysis is thoroughly justified.

The exploratory factor analysis has led to distinguishing one factor with high factor loadings (above 0.65) which explains almost 60% of results variance. In the confirmatory analysis (correlations, the method of estimation of the generalised least squares (GLS), the method of line search– golden section search, consistency in 17 interactions), one-factor model has been found to be well-fitted: RMSEA = 0.066; CFI = 0.957; GFI = 0.965; AGFI = 0.916. Results of both the analyses are presented in Table 2.

Table 2. **Results of exploratory and confirmatory factor analysis of Psychache Scale (n = 300)**

| Items | Exploratory Analysis Factor loadings | Confirmatory Analysis Parameter estimation* |
|---|---|---|
| 1. | -0.733 | 0.756 |
| 2. | -0.752 | 0.796 |
| 3. | -0.715 | 0.712 |
| 4. | -0.651 | 0.548 |
| 5. | -0.746 | 0.793 |
| 6. | -0.597 | 0.605 |
| 7. | -0.783 | 0.787 |
| 8. | -0.681 | 0.680 |
| 9. | -0.791 | 0.807 |
| 10. | -0.780 | 0.819 |
| 11. | -0.795 | 0.866 |
| 12. | -0.796 | 0.826 |
| 13. | -0.739 | 0.750 |
| Eigenvalue | 7.622 | |
| Explained variance | 0.586 | |

Source: own study; *All pathways significant p < 0.0001

## Reliability

Reliability of the tool was computed by estimating internal consistency and calculating the discriminant power of the questions. The internal consistency, based upon Cronbach's alpha, was estimated in four groups: students, alcoholics, co-addicted

women, and hospitalised patients with major depression. The values of Cronbach's alpha were fully satisfactory, and ranged from 0.90 to 0.96 (0.93 in the group of students). The discriminant power of the items is also satisfactory: correlation between the statements and the total score ranged from 0.51 for item 4 ($p < 0.001$), to 0.75 for item 12 ($p < 0.001$). The Cronbach's alpha coefficient did not rise after deleting any of the items (Table 3).

Table 3. **Discriminant power of the Psychache Scale items (n = 300)**

| Items | Discriminant power coefficients | Alpha with the item deleted |
|---|---|---|
| 1.  I feel psychological pain. | 0.673 | 0.920 |
| 2.  I seem to ache inside. | 0.689 | 0.919 |
| 3.  My psychological pain seems worse than any physical pain. | 0.653 | 0.920 |
| 4.  My pain makes me want to scream. | 0.515 | 0.925 |
| 5.  My pain makes my life seem dark. | 0.695 | 0.918 |
| 6.  I can't understand why I suffer. | 0.541 | 0.924 |
| 7.  Psychologically, I feel terrible. | 0.729 | 0.918 |
| 8.  I hurt because I feel empty. | 0.615 | 0.921 |
| 9.  My soul aches. | 0.738 | 0.917 |
| 10. I can't take my pain any more. | 0.734 | 0.917 |
| 11. Because of my pain, my situation is impossible. | 0.750 | 0.916 |
| 12. My pain is making me fall apart. | 0.755 | 0.916 |
| 13. My psychological pain affects everything I do. | 0.690 | 0.919 |

Source: own study

## External validity

Convergent validity of the Psychache Scale was estimated by means of analysing relations between its scores and results obtained in the tools measuring levels of depression (BDI, HADS), hopelessness (BHS), anxiety (HADS) and anhedonia (SHAPS). The choice of the tools was dictated by the relations between psychache and a majority of these variables that are suggested in the subject literature. It should be noted that the Snaith–Hamilton Pleasure Scale (SHAPS) which was applied in the study is used most frequently for testing anhedonia in clinical groups [32].

Discriminant validity was calculated by means of comparing scores on the Psychache Scale with results in the scales of optimism (LOT-R), life satisfaction (SWLS), and positive orientation (the Positivity Scale). The latter method is used to examine

tendencies to attach weight to positive aspects of life, experiences, and oneself [37, 38]. The choice of the method for assessing optimism was caused by results obtained by Orbach et al. [7], who proved relations between psychological pain (measured with OMMP) and this construct, and by studies by Chin and Holden [19], in which relations between optimism and psychological pain were analysed as well. In both studies LOT-R was used. Life satisfaction and positive orientation are related to optimism [38]. The obtained results are presented in Table 4.

Table 4. **Correlation coefficient for the Psychache Scale and results of the BDI, BHS, HADS, SHAPS, LOT-R, SWLS, PS (n = 300)**

|                   | BDI    | BHS    | HADS-D | HADS-A | SHAPS  | LOT-R   | SWLS    | PS      |
|-------------------|--------|--------|--------|--------|--------|---------|---------|---------|
| Psychache Scale   | 0.57** | 0.55** | 0.64** | 0.60** | 0.54** | -0.68** | -0.70** | -0.65** |

Source: own study; **$p < 0.001$

BDI – Beck Depression Inventory; BHS – Beck Hopelessness Scale; HADS – Hospital Anxiety and Depression Scale, D – Depression, A – Anxiety; LOT-R – Life Orientation Test; SWLS – Satisfaction with Life Scale; PS – Positivity Scale

As it is indicated in Table 4, the adapted method is characterised by a thoroughly satisfying external validity – there have been obtained significant (at the level of $p < 0.001$) correlation coefficients between this method and all the applied scores. The strongest positive relations to psychological pain were noted for depression measured with HADS, and the strongest negative correlation was found between psychological pain and life satisfaction measured with SWLS. To sum up this stage of analyses, it may be stated that they indicate very good psychometric properties of the adapted method.

As it has been already mentioned, in the course of working on adaptation of the Psychache Scale alcohol addicted men, co-addicted women and patients with a diagnosis of major depressive episode were also examined. The results are presented in Table 5.

Table 5. **Comparison of the psychache level among students, alcohol addicted men, co-addicted women and major depressive episode (MDE) patients**

|                 | Students n = 300 | | Alcohol addicted men n = 150 | | Co-addicted women n = 50 | | Major depressive episode patients n = 50 | | F | Post-hoc (Tukey) $p < 0.05$ |
|-----------------|-------|------|-------|-------|-------|-------|-------|-------|-------|-----|
|                 | M     | SD   | M     | SD    | M     | SD    | M     | SD    |       |     |
| Psychache Scale | 27.41 | 9.72 | 33.76 | 11.16 | 38.06 | 11.72 | 35.40 | 11.21 | 21.67 | abc |

Source: own study. a – significant difference between students and alcohol addicted men; b – significant difference between students and co-addicted woman; c – significant difference between students and depressive patients

Comparing results obtained in the four analysed groups indicates that the lowest scores on psychological pain were found in the group of examined students. The differences between the examined students and the other three groups were statistically significant. There were no statistically significant differences in the level of psycho-

logical pain between addicted men, co-addicted women and patients diagnosed with major depression.

In the group of 150 alcohol addicted men, 41 persons (27.3%) reported present suicidal thoughts. A comparison between persons reporting such thoughts and those not reporting them is shown in Table 6. As it can be seen, alcoholics who report suicidal thoughts are characterised by a markedly higher level of psychological pain.

Table 6. **Comparison between alcohol addicted men reporting suicidal thoughts and those who do not report them**

| | Alcohol addicted men with suicidal thoughts n = 41 | | Alcohol addicted men without suicidal thoughts n = 109 | | | |
|---|---|---|---|---|---|---|
| Psychache Scale | M | SD | M | SD | t | p < |
| | 39.81 | 11.79 | 32.15 | 10.35 | 3.85 | 0.01 |

Source: own study

In turn, in the group of people with depression, 20 persons (40%) stated that they had undertaken one or more suicide attempts. These people have a significantly higher level of mental pain – Table 7.

Table 7. **Comparison between those who have suicidal attempts in the past with those without suicidal attempts in group of patients with depression**

| | Suicidal attempts in the past n = 20 | | Without suicidal attempts n = 30 | | | |
|---|---|---|---|---|---|---|
| Psychache Scale | M | SD | M | SD | t | p < |
| | 40.40 | 10.03 | 32.30 | 10.92 | 2.65 | 0.05 |

Source: own study

## Conclusions

Since the time when the notion of psychological pain was introduced into dictionaries of psychopathology and suicidology, there have been made its numerous concepts and measurement tools. A majority of studies in which the methods are used are designed to examine Shneidman's concept of the mediatory role of psychological pain in relations between depression or hopelessness and the occurrence of suicidal tendencies or suicidal behaviours. According to Shneidman [1] the psychological pain reaching subjectively unbearable intensity, along with cognitive constriction, in which death is seen as the only way to end suffering, is the main source of suicidal behaviour. The studies, conducted in varied groups (e.g.: students, prisoners, the homeless, depressive patients after suicidal attempts and those without such attempts), show consistently a significant role of psychological pain in predicting suicidal thoughts and tendencies [6, 15, 21, 24, 39–41]. Psychological pain was examined also in der-

matological patients [42], Holocaust victims [43], and in persons subject to palliative treatment [44], its relations to physical pain were analysed as well [45].

The evidenced relationships between psychological pain and the occurrence of suicidal tendencies and behaviours speak for the usefulness of applying tools for assessment of this pain. They may be used both for screening aimed at distinguishing persons who are at risk of suicide, and also for assessment of a present state of a patient; they may also become an indicator of a therapy progress. According to Mee et al. [6], these tools may also be useful for assessing effectiveness of some antidepressants.

Above-mentioned functions can successfully fulfil the Polish version of one of the best-known methods for examining psychological pain – the Psychache Scale by Holden et al. The presented research results referring to its Polish version indicate that it is a reliable and valid tool for measuring the analysed construct. Cronbach's alpha reached the level comparable to the original one (0.93; in original version 0.92), also the strength of relations of the Polish version of the scale with scores on depression (BDI), hopelessness (BHS), and optimism (LOT-R) is close to the respective results of the foreign studies [19, 25].

The method differentiates people with suicidal thoughts from those without such thoughts and patients who reported suicide attempts in a past from patients without such attempts. This confirms the data from the literature resulting from the application of different methods to study mental pain [7, 11, 15, 24, 39, 41].

In the course of the adaptation works there was no need to delete any of the questionnaire items, thus it has retained its original structure, which allows for effective use of the Polish version in cross-cultural researches.

In the course of further work on the tool it is worth to create sten standard but it would require the examination of more people in different age groups. Moreover, further analysis can be used, among other things, to test Shneidman's hypothesis (which were tested in numerous foreign studies) concerning the mediation role of mental pain in the relationship between depression and the prevalence of suicidal thoughts and behaviour in the Polish population.

## References

1. Shneidman ES. *Suicide as psychache*. J. Nerv. Ment. Dis. 1993;181:145–147.

2. Shneidman ES. *The suicidal mind*. New York: Oxford University Press; 1996.

3. Shneidman ES. *Perturbation and lethality. A psychological approach to assessment and intervention.* In: Jacobs D. ed. *The Harvard Medical School guide to suicide assessment and intervention.* San Francisco: Jossey-Bass; 1999. p. 83–97.

4. Shneidman ES. *Anodyne psychotherapy for suicide: A psychological view of suicide*. Clin. Neuropsychiatry 2005; 2: 7–12.

5. Mee S, Bunney BG, Reist C, Potkin SG, Bunney WE. *Psychological pain: A review of evidence.* J. Psychiatr. Res. 2006; 40:680–690.

6. Mee S, Bunney BG, Bunney WE, Hetrick W, Potkin SG, Reist C. *Assessment of psychological pain in major depressive episodes.* J. Psychiatr. Res. 2011; 45: 1504–1510.

7. Orbach I, Mikulincer M, Gilboa-Schechtman E, Sirota P. *Mental pain and its relationship to suicidality and life meaning.* Suicide Life Threat. Behav. 2003; 33: 231–241.

8. Orbach I, Mikulincer M, Sirota P, Gilboa-Schechtman E. *Mental pain: A multidimensional operationalization and definition.* Suicide Life Threat. Behav. 2003; 33: 219–230.

9. Shneidman ES. *The psychological pain assessment scale*. Suicide Life Threat. Behav. 1999; 29: 287–294.

10. Tossani E. *The concept of mental pain*. Psychother. Psychosom. 2013; 82: 67–73.

11. Flamenbaum R. *Testing Shneidman's theory of suicide: psychache as a prospective predictor of suicidality and comparison with hopelessness*. Kingston: Queen's University; 2009.

12. Holden R, Mehta K, Cunningham EJ, McLeod LD. *Development and preliminary validation of a scale of psychache.* Can. J. Behav. Sci. 2001; 33: 224–232.

13. Chodkiewicz J. *Ból psychiczny – konceptualizacja i narzędzia pomiaru*. Psychiatria 2013; 10(3–4): 109–113.

14. Chodkiewicz J, Miniszewska J. *Ból psychiczny a występowanie myśli i tendencji samobójczych.* Psychiatr. Psychol. Klin. 2014; 14: 37–42.

15. Olie S, Guillaume I, Jaussent P, Courtet F. *Higher psychological pain during a major depressive episode may be a factor of vulnerability to suicidal ideation and act*. J. Affect. Disord. 2010; 120(1–3): 226–230.

16. Li H, Xie W, Luo X, Fu R, Shi C, Ying, X. et al. *Clarifying the role of psychological pain in the risks of suicidal ideation and suicidal acts among patients with major depressive episodes*. Suicide Life Threat. Behav. 2014; 44(1): 78–88.

17. Xie W, Li H, Luo X, Fu R, Ying X, Wang N. et al. *Anhedonia and pain avoidance in the suicidal mind: behavioral evidence for motivational manifestations of suicidal ideation in patients with major depressive disorder.* J. Clin. Psychol. 2014; 70(7): 681–692.

18. Krawczyk J, Gmitrowicz A. *Analiza czynników chroniących przed samobójstwem*. Psychiatr. Psychol. Klin. 2014; 14(1): 43–49.

19. Chin J, Holden R. *Multidimensional future time perspective as moderators of the relationships between suicide motivation, preparation, and its predictors*. Suicide Life Threat. Behav. 2013; 43(4): 395–405.

20. Holden R, Mehta K, Cunningham E, McLeod L. *Development and preliminary validation of a scale of psychache.* Can. J. Behav. Sci. 2001; 33: 224–232.

21. Mills J, Green K, Reddon J. *An evaluation of the Psychache Scale on an offender population*. Suicide Life Threat. Behav. 2005; 35: 570–580.

22. You Z, Juanjuan S, Caizhi W, Ping Q, Zongkui Z. *Effects of life satisfaction and psychache on risk for suicidal behaviour: a cross-sectional study based on data from Chinese undergraduates.* BMJ 2014; 4: 1–8.

23. DeLisle M, Holden R. *Differentiating between depression, hopelessness, and psychache in university undergraduates.* Meas. Eval. Counsel. Dev. 2009; 42: 46–63.

24. Troister T, Holden R. *Comparing psychache, depression, and hopelessness in their associations with suicidality: A test of Shneidman's theory of suicide.* Pers. Individ. Dif. 2010; 49(7): 689–693.

25. Troister T, Holden R. *Factorial differentiation among depression, hopelessness, and psychache in statistically predicting suicidality*. Meas. Eval. Counsel. Dev. 2013; 46(1): 50–63.

26. Beck A, Steer R. *Manual for the Beck Depression Inventory.* San Antonio: TX Psychological Corporation; 1987.

27. Parnowski T, Jernajczyk W. *Inwentarz Depresji Becka w ocenie nastroju osób zdrowych i chorych na choroby afektywne.* Psychiatr. Pol. 1977; 11(4): 417–421.

28. Beck A, Weissman A, Lester D, Trexler L. *The measurement of pessimism: The Hopelessness Scale.* J. Consult. Clin. Psychol. 1974; 42: 861–865.

29. Oleś P, Juros A. *Symptom poczucia beznadziejności w kognitywno-afektywnej teorii depresji A.T. Becka – Skala „Hopelessness" – polska adaptacja.* Summarum 1985–1986; 34–35: 289–298.

30. Zigmond A, Snaith R. *The Hospital Anxiety And Depression Scale*. Acta Psychiatr. Scand. 1983; 67: 361–370.

31. Majkowicz M. *Praktyczna ocena efektywności opieki paliatywnej — wybrane techniki badawcze*. In: de Walden-Gałuszko K, Majkowicz M. ed. *Ocena jakości opieki paliatywnej w teorii i praktyce.* Gdansk: Medical University, Department of Palliative Medicine; 2000. p. 21–42.

32. Snaith RP, Hamilton M, Morley S, Humayan A, Hargreaves D, Trigwell P. *A scale for the assessment of hedonic tone the Snaith-Hamilton Pleasure Scale*. Br. J. Psychiatry 1995; 167(1): 99–103.

33. Chodkiewicz J, Miniszewska J. *Polska adaptacja Skali Przyjemności Snaitha i Hamiltona*. Lodz: unpublished material.

34. Scheier M, Carver C. *Optimism, coping, and health: Assessment and implications of generalized outcome expectancies.* Health Psychol. 1987; 43: 219–247.

35. Juczyński Z. *Narzędzia stosowane w promocji i psychologii zdrowia.* Warsaw: Psychological Test Laboratory of the PPA; 2001.

36. Diener E, Emmons R, Larsen R, Griffin S. *The Satisfaction With Life Scale.* J. Pers. Assess. 1985; 49(1): 71–75.

37. Caprara G, Alessandri G, Eisenberg N, Kupfer A, Yamaguchi S, Fukuzawa A. et al. *The positivity scale.* Psychol. Assess. 2012; 24(3): 701–712.

38. Łaguna M, Oleś P, Filipiuk D. *Orientacja pozytywna i jej pomiar: Polska adaptacja skali orientacji pozytywnej.* Studia Psychol. 2011; 49(4): 47–54.

39. Pereira E, Kroner D, Holden R, Flamenbaum R. *Testing Shneidman's model of suicidality in incarcerated offenders and in undergraduates.* Pers. Individ. Dif. 2010; 49(8): 912–917.

40. Patterson A, Holden R. *Psychache and suicide ideation among men who are homeless: A test of Shneidman's model.* Suicide Life Threat. Behav. 2012; 42: 147–156.

41. Berlim M, Mattevi B, Pavanello D, Caldieraro A, Fleck M, Wingate L. *Psychache and suicidality in adult mood disordered outpatients in Brazil*. Suicide Life Threat. Behav. 2003; 33: 242–248.

42. Owoeye OA, Aina OF, Omoluabi PF, Olumide YM. *An assessment of emotional pain among subjects with chronic dermatological problems in Lagos, Nigeria*. Int. J. Psychiatry Med. 2007; 37(2): 129–138.

43. Ohana I, Golander H, Barak Y. *Balancing psychache and resilience in aging Holocaust survivors.* Int. Psychogeriatr. 2014; 26(6): 929–934.

44. Miniszewska J, Kuraś K, Chodkiewicz J. *Ból psychiczny u osób poddanych leczeniu paliaty-wnemu.* I National Conference of Clinical Psychology "Clinical Psychology in 21$^{st}$ century – theory and practice"; Poznan: Adam Mickiewicz University; 2014.

45. Meerwijk E, Ford J, Weiss S. *Brain regions associated with psychological pain: implications for a neural network and its relationship to physical pain.* Brain Imaging Behav. 2012; **7**(1): 1–14.

Address: Jan Chodkiewicz
Department of Health Psychology
Institute of Psychology
University of Lodz
91-433 Łódź, Smugowa Stret 10/12