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# Associations of time perspectives and attitudes towards seeking professional psychological help

*Abstract: Previous research has shown the importance of time perspectives (TP) in future-oriented decision making. However, the possible associations between time perspectives and seeking out psychological help in need have not been examined extensively, especially taking further influencing factors into consideration. Therefore, this study aimed to assess associations between personal time perspectives, stigma, socio-economic factors, and attitudes toward seeking professional psychological help (ATTSPPH) in a sample of adults in the general population in Hungary (N=273) aged 18-84 (mean=28.47, SD= 10.31). Multivariate regression analyses found that attitudes towards seeking professional psychological help were inversely associated with stigma, and residing outside of the capital city and positively associated with female gender. None of the time perspectives were associated with help-seeking. The results are discussed regarding the importance of mental health in Hungary.*

*Keywords: time perspectives, attitudes towards seeking professional psychological help, stigma, psychological distress, Hungary*

## Introduction

**Global and Hungarian state of mental health problems**

Globally, the prevalence of psychological distress in the general population is estimated to be between 5-27% (Drapeau, Marchand, & Beaulieu-Prévost, 2012). Adults are disposed to avoid help-seeking (Bland, Newman, & Orn, 1997): only about 35% of people with mental health problems seek help (Australian Bureau of Statistics, 2007, cited by Gulliver, Griffiths, & Christensen, 2010). Surprisingly, even psychology students are reluctant to do so: about a quarter reported that they would seek professional help in case of distress (Thomas, Caputi, & Wilson, 2014); 77% of them would reach out for informal help, 39% would prefer to drink, and 15% would use drugs (Pierceall & Keim, 2007) instead. However, finding psychological help would be essential (Rayan & Jaradat, 2016), because, without professional help, the mental state of a person in need might deteriorate even further (Romero et al., 2013). In Hungary, neuropsychiatric disorders contribute to 24.7% of the total burden of all medical and psychiatric diseases (Krupchanka

& Winkler, 2016), which indicates a high prevalence of mental illnesses, even among medical students (Bíró et al., 2010). Self-harm is higher in Hungary than in other EU countries, but so is both professional (22.8%) and informal (42%) help-seeking (Michelmore & Hindley, 2012).

**Attitudes towards seeking professional psychological help – barriers, and facilitators**

Attitudes towards seeking the help of a mental health professional may play an important role in the decision of seeking professional aid during a personal crisis or following prolonged psychological discomfort (Arora, Metz, & Carlson, 2016; Vogel, Wade, & Hackler, 2007). To underpin the methodology of the research field, Fischer and Farina (1995) developed a measure to assess attitudes towards seeking psychological help, which contains three main dimensions that can determine attitudes: openness to seeking professional help, value in seeking professional help, and preference to cope on one's own (Picco et al., 2016). This original measure showed strong internal consistency ($\alpha = .84$). The reliability and validity of the

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scale were supported again later by several studies that also showed good internal consistency coefficients (e.g. Gloria et al., 2010; Kim & Kendall, 2015; Cheng et al., 2018) Therefore, the concept and measurement (Attitudes Toward Seeking Professional Psychological Help Scale– Short Form, ATSPPH-SF, Fischer & Farina, 1995) have been widely applied in mental health studies (e.g. Cheng et al., 2018; Fung & Wong, 2007) ever since, discussing barriers of help-seeking (e. g. Lynch, Long, & Moorhead, 2018) and influencing factors (Han et al., 2018). Thanks to this long-lasting research of the field, some consensual findings seem to emerge. Research suggests that women might have more positive attitudes toward help-seeking than men (e.g. Rüch et al., 2014) due to openness displayed by women (Mackenzie et al., 2006) and the rigid masculinity associated with men (Gonzalez et al., 2005). Facilitators (Topkaya, 2015; Cheng et al., 2018) are previous help-seeking activity and knowledge about services (Kim & Zane, 2015), current psychological distress (Vogel & Wei, 2005), trust in interpersonal helper contact (Türküm, 2004), familiarity, and more positive attitudes toward psychologists (Surgenor, 1985). Barriers can be racial/ ethnic minority (Kim & Zane, 2015), negative view about mental health services (Angermeyer et al., 1999), the belief time is going to heal the problems (Sareen et al., 2007), poor mental health literacy (Brown et al., 2015), and self-reliance (Rickwood et al., 2005).

**Stigma - the major barrier**

There is overwhelming consensus in the literature that the major barrier of help-seeking is stigma (Heath et al., 2018; Lannin et al., 2016; Jorm et al., 2007), being the most commonly (85%) mentioned barrier (Ali et al., 2016) among those who considering help-seeking. Stigma is the shunning of persons or groups based on perceived judgments (Goffman, 2017). It might be characterized as public stigma: prejudices and stereotypes of the society (Corrigan, 2004); personal stigma: an individual's prejudices and stereotypes from the society (Griffiths et al., 2004); or self-stigma (Topkaya, 2014; Cheng et al., 2018), and it can be inhibiting for people experiencing it (Eisenberg et al., 2007). Help-seeking often goes hand in hand with shame, fear from labelling with a diagnosis (Hinson & Swanson, 1993), and concern about others' opinion about one's mental status (Rickwood, Deane, & Wilson, 2007), as societies tend to depict mental illness as a weakness rather than as an illness (Subramaniam et al., 2016). Stigma towards seeking professional psychological help, therefore, may hinder help-seeking behavior (e.g. Pinto, Hickman, & Thomas, 2015; Arora, Metz, & Carlson, 2016; Phillips, 1963) regarding both public-stigma and self-stigma. Research suggests that non-judgmental, kind attitude and the facilitation of self-compassion can buffer stigma (Heath et al., 2018).

**Time perspectives – the unmapped factor**

The new element that our research is aiming to add understanding the factors associated with help-seeking is the concept of time perspectives. The time perspective theory was developed to better understand attitudes toward time and our personal way of interpreting our life and experiences through time categories – because of the need of coherency and sense-giving –, which determine our choices (such as, the decision to seek psychological help) in many cognitive and affective ways (Zimbardo & Boyd, 2008). Time perspective theory is a subjective and relative concept about the perception of time (Zimbardo & Boyd, 1999). The five main factors of time perspectives are relevant for the current research: past negative, past positive, present hedonist, present fatalistic, and future orientation. Past negative time perspective is defined as "… a generally negative, aversive view of the past…" (Zimbardo & Boyd, 1999, p1274.), while past positive time perspective is "…a warm, sentimental attitude toward the past…" (p1275.). Present hedonist time perspective is "a hedonistic, risk-taking, »devil may care« attitude toward time and life…"(p1275.), present fatalistic time perspective is "…a fatalistic, helpless, and hopeless attitude toward the future and life…" (p1275.), and future time perspective is "…a general future orientation…" (p1275.) with planning and the priority of work over joy.

At the end of the deliberation process, help-seeking is also a choice. Future Time Perspective (FTP) is connected to motivation to change (Nuttin, 1985; Simons et al., 2004), while present fatalism is associated with demotivation (Zimbardo & Boyd, 2008). According to previous research, time perspectives are indeed associated with mental health. Past negative time perspective is often connected to poorer mental health as it is usually filled with early traumas (Zimbardo & Boyd, 1999) and strongly associated with depressive rumination (Nolen-Hoeksema, 1991). Otherwise past negative time perspective can facilitate help-seeking via experiencing symptoms. On the other hand, past positive time perspective is more correlated with better mental health status, due to positive (re)framing (Zimbardo & Boyd, 2008) and past being a stable ground (Karniol, 1996). Present orientation correlates with poorer physical and mental health state. Present hedonism has been linked to unprotected sexual behaviors (Rothspan & Read, 1996), smoking, alcohol consumption, drug use (Keough, Zimbardo, & Boyd, 1999), risky driving (Zimbardo, Keough, & Boyd 1997), and a lack of attention on physical and mental health (Zimbardo & Boyd, 2008). Furthermore, present fatalism has been linked to learned helplessness (Abramson, Seligman, & Teasdale, 1978) and the lack of belief that negative mental states are changeable and under individual control. On the other hand, FTP is strongly connected to prevention regarding both physical and mental health. Compared to people living predominantly in any other time perspective, future-oriented people tend to visit screening tests more often (D'Alesio et al., 2003), cope better with stress (Holman & Zimbardo, 2009), and are emotionally more stable and balanced (Harber, Zimbardo, & Boyd, 2003). Thus, time perspectives may play an important role in seeking professional help during times of distress, but so far little is known about these possible relationships between time perspectives and attitudes towards help-seeking. An exceptional study which examined the relationship between time perspectives and attitudes

towards seeking professional psychological help found no effects on help-seeking intentions (Erickson et al., 2017). The current study is aiming to revisit the investigation of this connection.

**Integration of time perspectives, stigma and help-seeking attitudes**

Providing a summary of the previously mentioned factors Table 1 depicts the facilitating and inhibiting factors in connection with help-seeking attitudes. Help-seeking is a decision-making process (Arora, Metz, & Carlson, 2016; Vogel, Wade, & Hackler, 2007), and almost every decision making is affected by individual time perspectives (Zimbardo & Boyd, 1999, 2008) which may facilitate or can become a barrier of help-seeking depending on one's dominant time perspective. Besides this consideration, we also added the widely cited facilitating (female gender, familiarity, etc.) and inhibiting factors (e.g. stigma) to our study.

**Rationale and research questions**

This study aimed to investigate among a sample of the general population in Hungary the relationship between attitudes toward seeking professional psychological help and certain factors that might be associated with help-seeking, such as personal time perspectives (past negativism, past positivism, present hedonism, present fatalism, and future orientation) and, additionally, stigma considering receiving psychological help and socioeconomic variables. To investigate this approach, we sought answers to the following research questions:

*1. Is there a connection between certain time perspectives and attitudes towards seeking professional psychological help?*
*2. Is there a connection between perceived stigma and attitudes towards seeking professional psychological help?*
*3. How and which socioeconomic factors are in association with attitudes towards seeking professional psychological help?*

Considering these research questions, we defined the following hypotheses:

1. Past negative time perspectives and future orientation are associated with more positive attitudes toward seeking professional psychological help.
2. Present fatalism is associated with more negative attitudes toward seeking professional psychological help.
3. Female gender and living in the capital city are associated with more positive attitudes towards seeking professional psychological help.
4. Perceived stigma is associated with more negative attitudes toward seeking professional psychological help.

## Materials and Methods

The study was conducted between January and April of 2017. We invited participants to complete an online survey by posting our questionnaire on the Facebook page and homepage of the Mindset online psychological journal, which is one of the most widely read instructional psychological platform in Hungary.

The only eligibility criterion was being at least 18 years old. After accepting an informed consent statement, participants proceeded to fill out the online survey, which took about 10 minutes to complete. Of the 275 people who filled out the questionnaire, three were excluded: two were under 18 and one provided unserious answers. Therefore, the final study sample included 272 participants. Regarding our sampling frame, it was important for us to achieve a heterogeneous sample as many of the previous research cited in our introduction used more homogenous student samples of which validity and reliability are often questioned (Peterson, 2001).

All procedures involving human subjects were reviewed and approved regarding ethical issues. The Institutional Review Board at Eötvös Loránd University approved all study protocols (filing number: 2014/169).

**Table 1. Possible drivers and barriers for seeking professional psychological help**

| Facilitating factors | Inhibiting factors |
|---|---|
| past negative TP trough perceived suffering pressure motivation due to negative childhood experiences and rumination (Zimbardo & Boyd, 1999; Nolen-Hoeksema, 1991) | perceived stigma trough anticipated social exclusion (Heath et al., 2018; Lannin et al., 2016; Jorm et al., 2007) |
| future time perspective trough motivation to prevention regarding mental-health and internal locus of control (Nuttin, 1985; Simons et al., 2004; Rotter, 1966; Calhoun et al., 1974; Fischer & Turner, 1970) | present fatalism trough learned helplessness and external locus of control (Abramson, Seligman, & Teasdale, 1978; Rotter, 1966; Calhoun et al., 1974; Fischer & Turner, 1970) |
| female gender trough openness (Mackenzie et al., 2006) | male gender trough rigid masculinity (Gonzalez et al., 2005) |
| capital city as place of residence trough familiarity (Surgenor, 1985) | countryside as place of residence due to higher perceived stigma |
| previous help-seeking experience (Surgenor, 1985) | expensiveness (Gulliver et al., 2010; Eisenberg et al., 2007) |

**Measures and Variables**

We compiled a questionnaire that had four sections. The first section measured *socio-demographic variables* and asked about age (continuous variable), gender (male vs. female – "other" was coded as missing), place of residence (Budapest vs. outside of Budapest – one "Hungary" response was coded as missing), and education (primary school, secondary school, and higher education – "other" was coded as missing). There were only a few missing data: 1 missing for the variable gender, place of residence and education, and 2 missing for the variable age. Missing values were not included in the analysis.

The second section measured individual time perspectives through the *Zimbardo Time Perspective Inventory* (ZTPI) (Zimbardo & Boyd, 1999). This inventory is measuring people's relationship with time and their interpretation of time through five factors of time perspectives (past negativism, past positivism, present hedonism, present fatalism, future orientation). The ZTPI has been widely cited, translated into numerous languages, and psychometrically well confirmed. In our study, we used the original inventory's Hungarian adaptation, which is a shortened form of the original version (Orosz, Dombi, Tóth-Király, & Roland-Lévy, 2015; Orosz & Roland-Lévy, in press). It contains 17 statements, each belonging to one of the 5 mentioned time perspectives. Below are five example sentences from each time perspective subscale back-translated from the Hungarian version (Orosz et al., 2015, p1272-75).

1. Past negativism: "*I think about the bad things that have happened to me in the past.*"
2. Past positivism: "*Happy memories of good times spring readily to mind.*"
3. Present hedonism: "*I take risks to put excitement in my life.*"
4. Present fatalism: "*You can't really plan for the future because things change so much.*"
5. Future orientation: "*I am able to resist temptations when I know that there is work to be done.*"

Each of the 17 statements can be rated by a five-point Likert-scale, with the following response options: 1="Absolutely not true", 2="Not true", 3="Neutral", 4="True", 5="Absolutely True". We created a composite variable for each time perspective by summing up the points for that respective perspective. Scale-reliability for the original translation (Orosz et al., 2015) showed the following Cronbach-alphas: 0.73 (future orientation), 0.7 (present fatalism), 0.84 (present hedonism), 0.69 (past positive TP), 0.68 (past negative TP), which are acceptable according to Nunnally (1978). Our original Cronbach-alphas were, respectively: 0.43; 0.32; 0.36; 0.26; 0.61 – these values are likely to be low due to the few numbers of items (two subscales with 4 items and three subscales with 3 items) per subscales and the lower sample size of our study. Therefore, we decided to improve reliability where it was possible, by deleting items suggested by SPSS, which increased reliabilities regarding scales of past negative time perspective (new Cronbach-alpha: 0.74, by deleting item

1.) and future orientation (new Cronbach-alpha: 0.68, by deleting item 4.) All other time perspective scales (past positivism, present fatalism, present hedonism) were excluded from the analysis as deleting any items would not improve reliability.

The third section contained the *Attitudes Toward Seeking Professional Psychological Help Short form* (ATSPPH-S) (Fischer & Farina, 1995). This scale is measuring attitudes towards seeking help for solving psychological problems. The ATSPPH-S includes 10 statements, such as:

"*If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.*" and "*The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.*" (Fischer & Farina, 1995, p1.) Each of the 10 statements can be rated by a four-point Likert-scale, with the following response options: 0="Disagree"; 1="Partly Disagree"; 2="Partly Agree"; 3="Agree".

Because there had been no Hungarian adaptation of this scale so far, we created one as follows. First, a professional translator of social sciences translated the scale items from English to Hungarian. Then another translator back-translated it from Hungarian to English. After this, a psychologist who was a native English speaker compared the back-translation with the original version and made corrections. Cronbach's alpha calculated for the 10 items of our Hungarian adaptation was 0.82 (Cronbach's alpha for the original questionnaire was 0.84). We created a composite variable based on the ATSPPH-S scale by summing up the scores of the scale. The composite variable was the dependent variable in the analysis, with higher scores indicating more positive attitudes.

The fourth section of the survey was the *Stigma Scale for Receiving Psychological Help* (SSRPH). This very short scale was created by Komiya, Good, and Sherrod (2000) to measure people's thoughts and assumptions about experiencing stigmatizing manifestations from others or the society because of receiving psychological help. The SSRPH includes five statements, such as, for example: "*Seeing a psychologist for emotional or interpersonal problems carries a social stigma.*" (p139.). Each of the five statements can be rated by a four-point Likert-scale, with the following response options: 0="Strongly Disagree" 1="Disagree", 2="Agree" and 3="Strongly agree". On this scale, higher scores indicate higher perceived stigma.

Since there was no Hungarian version of this scale, we created one similar to how we created the Hungarian version of ATSPPH-S. Cronbach's alpha calculated from the five items of our Hungarian adaptation was 0.78 (Cronbach's alpha for the original questionnaire was = 0.72).

**Data Analysis**

Descriptive statistics (frequency and means with corresponding standard deviations [SD]) were produced to explore the characteristics of the variables included in the analysis. Univariate linear regressions were carried out to assess the relationship between the dependent variable

(ATSPPH) and each independent variables. For continuous variables, univariate slope estimates and their p-values are reported, and for categorical variables, means and SD within categories are presented in Table 1. All variables were then entered into a multivariate linear regression model, using the enter-method (simultaneously entered variables) utilizing theoretical, rather than statistical considerations to identify those variables that were significantly (p<0.05) associated with ATSPPH. All analyses were conducted in IBM SPSS Statistics 22.0.

**Results**

Altogether 273 participants completed the online questionnaire. The average age of participants was 28.47 years (range: 18-84). Most of them were female (218) along with 58 males; 119 of the participants lived in the capital city of Budapest, and 152 lived in the countryside. Almost all (267) participants had at least secondary school education: 171 had higher, 96 had secondary, and 4 had primary education. Considering time perspectives, future orientation reached the highest average score in our sample (mean=14, out of 20; SD=2.6), followed by present hedonism (mean=9.8, out of 15; SD=2.2), past positivism (mean=8.9, out of 15; SD=2.3), present fatalism (mean=8, out of 15; SD=2.2), and past negativism (mean=10.4, out of 20; SD=3.5) closed the line. As the past negativism and future orientation scales are four itemed, these two had a maximum of 20 points, and the other three had 15. The average score for perceived stigma for receiving help was around one third (5.8) of the maximum score (15).

In *univariate analysis*, stigma against receiving psychological help, and residing outside the capital city of Budapest was significantly inversely, and female gender was significantly positively associated with ATSPPH (Table 2). In the multivariate analysis stigma against receiving psychological help, and residing outside the capital city of Budapest were significantly inversely, and female gender was significantly positively associated with ATSPPH (Table 2). None of the time perspectives (past negativism and future orientation) were associated with help-seeking neither in the univariate nor in the multivariate analysis (Table 3 - next page).

**Table 2. Description of the sample (N=272) and results of the univariate linear regressions**

| Characteristics | N (%) or mean (SD) | Univariate analysis | p-value |
|---|---|---|---|
| *Attitudes toward seeking professional psychological help (dependent variable)* | *19.4 (6.0)* | | |
| *Time perspective* | | | |
| past negativism - mean (SD) | 10.4 (3.5) | 0.007 | 0.953 |
| future orientation - mean (SD) | 14.0 (2.6) | 0.008 | 0.959 |
| *Stigma* for receiving psychological help -mean (SD) | 5.8 (3.3) | -3.075 | **>0.000** |
| *Socio-economic variables* | | | |
| Age - mean (SD) | 28.4 (10.3) | -0.001 | 0.974 |
| Gender | | 2.39 | 0.007 |
| Male (reference) | 58 (21.3%) | 17.6 (6.7) | - |
| Female | 213 (78.3%) | 19.9 (5.8) | - |
| missing | 1 (0.4%) | - | - |
| Place of residence | | -3.51 | **>0.001** |
| Budapest (reference) | 119 (43.8%) | 21.4 (5.1) | - |
| outside of Budapest | 152 (55.9%) | 17.9 (6.3) | - |
| missing | 1 (0.4%) | - | |
| Education | | 0.96 | 0.180 |
| primary school | 4 (1.5%) | 17.0 (6.1) | |
| secondary school | 96 (35.3%) | 18.9 (5.8) | |
| higher education | 171 (62.9%) | 19.8 (6.1) | |
| missing | 1 (0.4%) | | |

*Notes*: * p < 0.05. In the univariate analysis column, for continuous variables, univariate slope estimates and their p-values are reported, and for categorical variables, means and SD within categories are reported.

**Table 3. Multivariate linear regression analysis predicting attitudes toward seeking professional psychological help**

|  | B (S.E.) | β | p |
|---|---|---|---|
| Gender[1] | -2.05 (0.85) | -0.14 | **0.017** |
| Place of residence[2] | 2.87 (0.72) | 0.24 | **0.000** |
| Age | 0.13 (0.34) | 0.22 | 0.7 |
| Past negativism | -0.49 (0.11) | -0.03 | 0.64 |
| Future orientation | 0.00 (0.14) | 0.00 | 0.98 |
| Stigma[3] | -2.22 (0.73) | -0.18 | **0.003** |

*Notes:* Unstandardized (B) and standardized (β) regression coefficients and the related standard error (S.E.) values are presented with bold figures that are significant at least $p<0.05$ level. [1]Gender coded as 0=Females, 1=Males; [2]Place of residence coded as 1=Budapest, 0=Outside of Budapest; [3]Stigma coded as 0=At most 6 points of scale score, 1=At least 7 points of scale score.

## Discussion

The present study aimed to investigate the relationship between attitudes toward seeking professional psychological help and personal time perspectives (past negativism, past positivism, present hedonism, present fatalism, and future orientation) and, additionally, the stigma for receiving psychological help and socioeconomic varables.

As our main result, we found that attitudes toward seeking professional psychological help were significantly associated with stigma, gender, and place of residence. Our result does not confirm our previous hypotheses regarding time perspectives. In the case of future orientation, it might not associate with better attitudes towards help-seeking because future-oriented people are already in a good physical and mental shape (D'Alesio et al., 2003; Holman & Zimbardo, 2009; Harber, Zimbardo, & Boyd, 2003). Regarding past negativism, we previously hypothesized significant association, because we supposed that as past negativism is usually filled with trauma in the past, which can cause symptoms and diseases (for example rumination, depression). can be a motivator of help-seeking, which might result in more positive attitudes toward seeking professional psychological help. However, according to our results, this is not the case. This might be due to the significant correlation of past negativism and present fatalism which is supported by the literature (Zimbardo & Boyd, 2008). This is interpreted by Zimbardo and Boyd (2008) as learned helplessness (Seligman, 1972) since early negative life events can lead to fatalistic attitudes and passive rumination (Nolen-Hoeksema, 1991). Also, present fatalism is a generally unmotivated state that includes external locus of control (Rotter, 1966; Calhoun et al., 1974; Fischer & Turner, 1970).

Besides time perspectives, we found a significant negative association between stigma and attitudes toward seeking professional psychological help. This is in line with prior studies, showing that stigma can have a significant negative impact on and may play a crucial role in attitudes toward seeking professional psychological help (Phillips, 1963; Surgenor, 1985; Komiya, Good, & Sherrod, 2000; Pinto, Hickman, & Thomas, 2015). On the other hand, a stronger tolerance to stigma (Fischer & Turner, 1970) can facilitate help-seeking. Perceived stigmatization has also shown an association with masculinity and femininity in past studies (Bem, 1974, 1981; Türküm 2004). For example, more feminine students had more positive attitudes than more masculine students toward seeking professional psychological help (Türküm, 2005). As such, seeking help may be perceived as a feminine action to do, while coping alone without help may be viewed as masculine. This might explain the higher attitude scores for women in our study, a finding that has also appeared in prior research (Fischer & Turner, 1970; Phillips & Segal, 1969; Surgenor, 1985; Arora, Metz, & Carlson, 2016). It is important to mention here that there were no gender differences in time perspectives and stigma scores.

Thirdly, we found some important significant associations between socioeconomic variables. Our finding that those who live in the capital city had more positive attitudes towards seeking professional psychological help may be explained by the importance that familiarity has in forming attitudes (Surgenor, 1985). In Budapest, the prevalence of active psychologists is higher than in the countryside and psychology as such is more represented in the common knowledge and culture. Not knowing much about psychological help is also mentioned by Topkaya (2015) as an inhibiting factor for seeking help. Higher availability of and better access to psychologists in the capital city may have brought about that people who live in the capital city became more familiar with psychological care and consecutively developed more positive attitudes. On the contrary, the lack of psychologists in the Hungarian

countryside might have resulted in people being unfamiliar with and thereby having less favorable attitudes towards psychologists. Another important explanation of this result is the correlation between stigma and place of residence that we found. Those who live in the countryside might perceive stronger stigmatization concerning seeking psychological help, therefore stigma can act as a mediator factor as well.

Certain limitations of this study must be mentioned. For example, males and people with primary school education were underrepresented, which might limit the generalizability of our finding to males and people with lower education levels. The underrepresentation of males might be explained by a heightened interest in psychological topics among women and people with more education, who are also more likely to seek psychological help (Surgenor, 1985; Good, Dell, & Mintz, 1989). Another limitation is that both stigma and attitudes toward seeking professional psychological help are delicate subjects, which might have resulted in social desirability bias. However, since data collection was not interviewer-assisted but based on self-reported questionnaires, this might have reduced social desirability bias (Grimm, 2010). Additionally, the recruitment methods used may have impacted the representativeness of the sample, particularly with regards to age and gender, and so may have implications for the findings. For example, research suggests that recruitment via Facebook attracts younger samples, and we cannot be sure to what extent the findings hold for older samples. Age-related patterns are also interesting as research shows time perspectives differ with age, particularly concerning past negativism (Laureiro-Martinez, Trujillo, & Unda, 2017). However, according to the inter-correlations of our results, age only correlated with past positive and present hedonist time perspective, which were non-significant variables in our multivariate model.

It is also likely that recruitment via an online psychological journal impacted results, since people who are accessing online information about psychology may be more receptive to the idea of psychological support, therefore potentially biasing results. Additionally, those who chose to participate may be more favorably predisposed to seeking psychological help than those who chose not to participate, which issue stresses a self-selection bias. Therefore, we did not achieve our goal stated in the Sample section, as we could not recruit a heterogeneous sample that we aimed at, although it is still more heterogeneous than most student samples (Greenberg, 1987).

Furthermore, we collected only certain information, and the study did not include other variables (e.g. emotional openness) that might be associated with attitudes toward seeking professional psychological help (e.g. Komiya, Good, & Sherrod, 2000), or the potentially prohibitive factor of the expensiveness (Gulliver et al., 2010; Eisenberg et al., 2007) of mental health services. Furthermore, in many countries, people have negative views of seeking mental health care due to financial constraints or cost in addition to the stigma associated with seeking care for a mental health problem. This financial aspect might be exacerbated by the fact that some people might believe, for example, that if they seek professional help for a mental health problem they might not be seen as fit for certain types of employment. These two common issues in accessing mental health care seem to be missing from Fischer and Farina's (1995) work. Therefore, there may be additional unexplored aspects of the attitudinal structure of people contemplating access to mental health services. However, the focus of this study was on the possible associations between time perspectives and attitudes towards seeking professional psychological help, and not on many other possible associated variables. From this aspect, only attitudes towards seeking psychological help were assessed, which may not necessarily relate to actual help-seeking behavior. Furthermore, the study was cross-sectional, and therefore causality was impossible to assess. Also, one limitation might be that concerns in Hungary might be different from concerns in other countries, and therefore our results might not be generalizable for other countries or cultures. Finally, one additional limitation is that the original Chronbach-alphas of the time perspective scales were very low, therefore we had to exclude three of the five time perspective scales and delete items (one per each scale) to increase reliability within the two remaining scale to include them in the multivariate model. We suspect that this might be due to our comparatively small sample size and maybe the sampling process (online sampling), but mostly due to that each subscale has 3 or 4 items in the Hungarian translation and 17-itemed shortened form of ZTPI (Orosz, Dombi, Tóth-Király, & Roland-Lévy, 2015; Orosz & Roland-Lévy, in press). Future studies with larger sample sizes and/or more uniform sampling strategies might avoid this problem and can test all five time perspectives in one model.

All in all, we cannot conclude that individual time perspectives are in association attitudes toward seeking professional psychological help. Although, future studies should further assess the roles of individual time perspectives in seeking psychological care, as well as how they can be used to motivate those in need to seek psychological help. According to our significant results, our study points to the direction that male gender, living in the countryside and perceived stigma can be inhibiting factors that could be used to understand and improve attitudes towards seeking professional psychological help. As such, psychologists can utilize the notion that these factors should be taken into consideration to motivate patients before and during the process of psychological help.

## Disclosure Statement

All authors have seen and approved the content of the manuscript and have contributed significantly to the work. There is no sign of any conflict of interest. The manuscript has not been accepted for publication elsewhere. No writing assistance was provided in the preparation of

the manuscript - it is entirely the work of the authors. All procedures involving human subjects were reviewed and approved.

## Data availability statement

Data is available on request from the authors. The data that support the findings of this study are available from the corresponding author, upon reasonable request.

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