

Future teachers' wisdom and difficult life experiences

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Abstract

Webster's H.E.R.O.(E.) model of wisdom was used to explore if students, future teachers, of the same age but in two cohorts differed in wisdom and its dimensions and if their wisdom differed depending on how difficult they considered their lives to be. 116 students were included in the 2012 cohort with an average age of 21.54 years, and 115 students participated in the 2022 cohort with an average age of 21.17 years. Wisdom was measured with Webster's Self-Assessed Wisdom Scale (SAWS). The results revealed no differences between the two cohorts in wisdom and its five dimensions in the H.E.R.O.(E.) model. The students that estimated their lives as more difficult scored higher on total wisdom results and on the majority of its dimensions (experience, reminiscence/reflection, and openness), except for emotion regulation and humour.

Keywords: adversity, emotion regulation, humour, openness, reminiscence, reflection, SAWS

Introduction

Wisdom has started capturing more psychological scientific interest in the last forty years, and the body of research keeps growing. Webster and colleagues (2014) propose that wisdom is a multidimensional construct in which life lessons learned via evaluative reflection enable individuals to develop as persons as well as to contribute to the common good. Grossman (2017) elaborates that wise thinking in everyday life encompasses: (a) intellectual humility, which refers to the recognition of the limits of one's own knowledge; (b) appreciation of wider perspectives than just the obvious ones; (c) sensitivity to change and dynamics in social relations; and (d) integration of diverse opinions. As Weststrate and Glück state, wisdom is (2017, 367): "[...] experience-based knowledge about life that is acquired through and goes along with a certain mindset: the willingness and ability to take a broad, non-self-centered perspective on life with the goal of understanding it in all its complexity. People who have this mindset are more likely to learn more about life and accumulate wisdom-related knowledge over time than others, and they are more often able to deal with difficult situations wisely. How we can foster this mindset in human beings may be one of the most crucial questions for humanity at this point." To sum it up, wise people take care of themselves, of other people, and of the wider contexts they are included in (Sternberg et al., 2007). Teaching for wisdom, therefore, could provide good potential for a better (co)existence, as it encourages a deeper understanding of what a meaningful life is and how it can be accomplished. It generally promotes optimal human development (Ferrari & Kim, 2019). Teachers can encourage such teaching and learning by employing various methods and techniques, as well as by serving as role models. So it is relevant to explore their wisdom and what it can be related to.

Wisdom, cohorts and critical life events

There have been many studies exploring wisdom related to age that compared different cohorts in cross-sectional designs. If wisdom refers to learning from critical life events and applying the competence to facilitate optimal development (Webster, 2010), it implies that wisdom is timeless and not assigned to a certain period in history. Finding that cohorts had not significantly predicted wisdom, Wink and Staudinger (2016) concluded that different cohorts may have had more or less challenging historical circumstances to deal with. As a consequence, these circumstances have made a difference in how the cohort members see life and what they have learned from such situations. The authors point out that it is unlikely that this potential change would affect the covariation patterns. Before that, Smith & Baltes

(1990) conducted research in which wise responses were equally distributed across age groups and wisdom-related knowledge did not show an overall advantage of one cohort group but rather reflected individual and specific life experience (Smith & Baltes, 1990). More recently, in a study of the implicit theory of wisdom, Hu and colleagues (2018) examined the understanding of wisdom across two generations in China: Mao's generation that had experienced the Cultural Revolution (1966–1976) and Deng's generation that was born after it. Although some aspects of wisdom differed between the two generations (spirituality and mindset), the generational differences suggested that the aspects of wisdom dealing with cognitive, practical, and social engagements were more universal and robust (Hu et al., 2018).

In the mentioned studies, participants were always people of various generations approached at the same time. However, it remains unexplored if wisdom differs between different cohorts approached at different times when participants in the included cohorts are of the same age.

Wisdom theories, life-span developmental views of adulthood, and literature on personal growth support the idea that life experiences play important roles in the development of wisdom (Glück & Bluck, 2013). People who successfully overcome challenging life situations, such as crises, suffering, and health issues, and who use these adverse experiences as opportunities for further growth and development are more likely to become wiser (Asadi et al., 2017; Bianchi, 2005; Plews-Ogan et al., 2019). Highly aversive events usually threaten people's sense of coherence, predictability, and safety. Consequently, they require more difficult and more extensive cognitive processing to accommodate major changes in existing representations of the self and the world. Ultimately, the gained reflections and insights can be seen as valuable life lessons (Webster, 2022).

H.E.R.O.(E.) model of wisdom

The model used as a framework for this research is Webster's (2010, 2014) Humour, Emotion Regulation, Reminiscence/Reflectiveness, Openness, and Experience (H.E.R.O.(E.)) model. It defines wisdom as the "competence in, intention to, and application of critical life events to facilitate optimal development in oneself and others" (Webster, 2010, 71). According to this model, wisdom comprises five interrelated factors: critical life experiences, humour, reminiscence/reflectiveness, openness to experience, and emotion regulation. *Critical life experiences* are challenging life events characterised by uncertain and possibly threatening outcomes. *Reminiscence/reflectiveness* is the capacity to learn from experiences, understand causality and interconnectedness, and predict possible outcomes in various life situations. Wiser people are more prone to engage in high-quality event reconstruction

and analysis (Weststrate et al., 2018). They are also more likely to question their views and behaviour, as their goal is not to reassure themselves but to search for a more extensive comprehension (Glück et al., 2019). Experiencing difficult life situations, as well as reflecting upon them, usually triggers strong affective reactions. Not to become overwhelmed by them, wise people employ *emotion regulation* (Webster, 2022). Emotion regulation means that wise people are aware of their emotions, tolerant of ambivalent feelings, and manage the expression of emotions suitable to the situation (Glück et al., 2019). One of the ways to regulate emotions in an adaptive and acceptable way is by engaging in particular forms of *humour* (Webster, 2014). It includes not taking oneself too seriously and recognising irony in various situations. Wise humour is non-defensive, playful and humble, and it encourages social bonding and reduction of tension as a coping mechanism. Finally, wise people tend to approach situations with greater openness. It includes multiple perspectives, a non-judging viewpoint, curiosity for novelty, and enjoyment in learning from others (Glück et al., 2019). They seek out growth experiences, find direction and purpose in unexpected interactions, and adapt well to the changes life inevitably brings (Webster, 2014).

Students – future teachers as emerging adults

Webster and colleagues (2018) summarise the results of research focused on wisdom related to age. There is some evidence that wisdom increases or that wisdom-related knowledge emerges in late adolescence and early adulthood. They suggest that exploratory processing, particularly processing unpleasant emotional experiences, could be crucial for wisdom development in that stage of life. Exploratory processing refers to analytical and interpretive reflection on life events. It aims at meaning-making, complexity, and growth from the past and is related to psychological maturity (Weststrate & Glück, 2017). In adulthood, people over 40 years of age recall important autobiographical events more from the period when they were 20 to 29 years old compared to other periods of life. This phenomenon of the 'reminiscence bump' appears very likely because many major life events occur at that developmental stage. Sensing that these events are connected with gaining more control over them, they can be adaptive in terms of greater life satisfaction (Koppel & Berntsen, 2016; Liao et al., 2021). However, emerging adulthood is rarely the target population when wisdom is explored (Webster et al., 2018).

Students, future teachers, are emerging adults. On the one hand, they are in such a developmental stage that their capacity to grow wise is high. On the other hand, they are gaining teaching competences that can significantly impact their future students. If given a chance, they are in a position to learn how to implement various

teaching competences wisely and how to encourage their future students to be wise. However, it will be beneficial to examine if the H.E.R.O.(E). model applies in the students' case.

The purpose of this study was to explore wisdom and its five dimensions concerning the difficulty of life in two cohorts of students, future teachers. Two objectives were formulated: (1) to examine if students of the same age, but in two cohorts, differ in wisdom and its dimensions; and (2) to explore if the students' wisdom differs depending on how difficult they consider their lives to be. Two hypotheses were posed related to the objectives: H (1): Two cohorts will not differ in wisdom and its dimensions; and H (2): Wisdom will be higher in groups with more difficult life experiences.

Materials and Methods

Participants

The research comprised students, all Croatian residents, who studied to be teachers, either in primary or secondary education (teachers of languages, history or music). Their study programmes did not include the topic of wisdom in the course content of their syllabi. Two cohorts of students took part: one in 2012 and the other in 2022. In the 2012 study, 116 students were included. Their age ranged from 18 to 24 years ($M = 21.54$, $SD = 1.55$), and 89.7% of the sample were female students. In the 2022 study, 115 students participated, and their ages spanned from 19 to 26 years ($M = 21.17$, $SD = 1.75$), with 85.2% being female. The two samples differed neither in the average age ($t = 1.74$, $p > .05$) nor in gender ($\chi^2 = 1.04$, $df = 1$, $p > .05$).

Measures

Wisdom was measured with the Self-Assessed Wisdom Scale, the SAWS, constructed and developed by J. D. Webster (2003, 2007). With permission of the copyright holder (author), it was translated into the Croatian language, and the psychometric study of the Croatian version obtained a satisfactory factor solution, very similar to those obtained by the author (Ambrosi-Randić & Plavšić, 2015). In this research, Cronbach alpha for the total score was .91 for both cohorts, and it varied between .70 and .87 for the five subscales or factors. The five factors in the SAWS are: experience, emotion regulation, reminiscence/reflection, humour and openness (Webster, 2007). Each factor comprises eight items. Experience is composed of items regarding a variety of experiences in interpersonal contexts, including coping with difficult life events. A typical item of this scale is: "I have had to make many important life decisions". Emotion regulation refers to the exposure and appropri-

ate regulation of the spectrum of human emotions, and includes acceptance of both pleasant and unpleasant ones. A typical item of this scale is: "I am very good at reading my emotional states". Reminiscence/reflection includes the ability to use the personal past and connect with the present, as well as using personal memory for coping. A typical item of this scale is: "Reviewing my past helps gain perspective on current concerns". Humour refers to the recognition of ironies in everyday life, the ability to make others feel more comfortable, and to copying strategy. An example of this scale is: "I often use humour to put others at ease". Openness contains items that measure openness to new ideas, values and experiences, the willingness to accept novelty and the tolerance of others. An item of this scale is: "I like to read books which challenge me to think differently about issues". Participants responded to 40 items on a six-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). Results can range from 40 to 240. Higher results suggest higher wisdom.

The difficulty of life was explored with two questions: (1) "Has your life been difficult or easy?" Three answers were offered: "It has been easy. / It has been as other people's. / It has been difficult."; (2) "Have you had difficult life experiences (serious illnesses, losses, etc.)?" Again, there were three possible answers: "No, none. / Yes, one. / Yes, more than one". Retest reliability on a separate sample measured with Cramer's V coefficient of association was significant and showed .91 for the first question and .78 for the second question.

General biographical data were collected with a few usual questions related to age and gender.

Procedure

This research was a part of two larger surveys of wisdom in 2012 and 2022. The scales were administered to university students, future teachers of primary education, languages, history and music, during their psychology and pedagogy classes. In 2012, they filled them out on paper, and in 2022, they filled them out online. Taking part in the study was anonymous and voluntary. The University's Committee for Research Ethics approved the research design as ethical.

Results

In order to explore wisdom and its five dimensions concerning the difficulty of life in the two cohorts of students, descriptive data were calculated, and they are shown in Table 1. The analysis of skewness and kurtosis revealed that all the distributions were normal or within the accepted range of ± 2 for skewness and ± 7 for kurtosis (Bryne, 2010; Hair et al., 2010).

Table 1. Descriptive data for the SAWS and its five subscales in the two cohorts

	Cohort 2012 (N = 116)			Cohort 2022 (N = 115)		
	Min – max	M	SD	Min - max	M	SD
SAWS	109 – 224	171.87	24.67	71 – 226	174.14	26.33
Experience	17 – 48	33.88	6.99	13 – 48	35.97	7.16
Emotion regulation	21 – 47	33.87	5.56	12 – 48	33.69	6.76
Reminiscence/reflection	18 – 48	34.21	7.35	16 – 48	34.94	7.44
Humour	21 – 48	37.73	6.34	15 – 48	37.15	6.64
Openness	14 – 47	32.18	7.15	12 – 45	32.39	6.95

SAWS = self-assessed wisdom scale

To explore how difficult they thought their lives had been, the students responded to two questions. The results are presented in Table 2.

Table 2. Difficulty of life experiences in the two cohorts

		Cohort 2012 (N = 116)	Cohort 2022 (N = 115)
		frequencies	frequencies
Has your life been difficult or easy?	Easy	19	10
	As other people's	72	79
	Difficult	25	26
Have you had difficult life experiences?	No, none	35	32
	Yes, one	39	35
	Yes, more than one	42	48

Table 3. Descriptive statistics for the SAWS and its subscales in the two cohorts according to the assessment of life difficulties

Cohort	Difficulty of life	SAWS	Experience	Em. reg.	Rem./ref.	Humour	Openness
		<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
2012	Easy	155.84 (19.94)	28.47 (5.49)	33.42 (5.57)	30.95 (6.17)	35.74 (6.38)	27.26 (6.72)
	As other people's	170.31 (22.89)	33.49 (6.45)	33.33 (5.39)	33.50 (6.98)	37.74 (6.15)	32.25 (6.65)
	Difficult	188.56 (23.80)	39.12 (6.02)	35.76 (5.85)	38.72 (7.44)	39.24 (6.70)	35.72 (6.93)
2022	Easy	172.90 (15.79)	30.40 (5.21)	37.50 (5.62)	33.50 (8.13)	39.00 (7.67)	32.50 (5.91)
	As other people's	169.97 (28.56)	34.99 (6.90)	32.92 (6.74)	34.03 (7.69)	36.48 (6.90)	31.56 (7.32)
	Difficult	187.27 (17.06)	41.12 (5.69)	34.54 (6.84)	38.27 (5.39)	38.46 (5.15)	34.88 (5.65)

SAWS = self-assessed wisdom scale

No significant differences were found (Table 2) between the cohorts in the students' assessments of how difficult their lives have been ($\chi^2 = 3.13$, $df = 2$, $p > .05$) and in the quantity of difficult life experiences ($\chi^2 = .75$, $df = 2$, $p > .05$).

To examine if the students in the two cohorts differed in wisdom related to difficult life experiences, a two-way ANOVA was performed. The dependent variable was wisdom, operationalised as the total SAWS score and scores on its five subscales, and the independent variables were cohort and life difficulty (explored with two questions).

When wisdom was explored related to the cohort and the students' assessments of their lives as easy, as other people's, or as difficult, six two-way ANOVA analyses were performed with a Bonferroni adjusted alpha level of .008 per test (.05/6). The means and standard deviations for the total SAWS scores and scores on its subscales are presented in Table 3.

The results of two-way ANOVA indicated no significant main effect for the cohort, either for the total SAWS scores, or for the five subscales; a significant main effect for life difficulty on total SAWS scores, $F(2, 225) = 12.42$, $p < .001$, partial $\eta^2 = .10$, and on the subscales *experience*, $F(2, 225) = 27.54$, $p < .001$, partial $\eta^2 = .20$, *reminiscence/reflection*, $F(2, 225) = 10.12$, $p < .001$, partial $\eta^2 = .08$, and *openness*,

Table 4. Descriptive statistics for the SAWS and its subscales in the two cohorts according to the quantity of difficulties in life

Cohort	Quantity of difficult life experiences	SAWS	Experience	Em. reg.	Rem./ref.	Humour	Openness
		<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
2012	None	160.37 (24.20)	29.43 (6.59)	33.60 (5.65)	32.69 (6.22)	35.49 (6.90)	29.17 (7.46)
	One	171.33 (24.01)	34.00 (6.74)	33.08 (5.67)	33.21 (7.92)	38.28 (6.34)	32.77 (7.11)
	More than one	181.95 (21.67)	37.48 (5.36)	34.83 (5.38)	36.40 (7.32)	39.10 (5.45)	34.14 (6.21)
2022	None	162.44 (27.79)	31.44 (7.28)	33.06 (6.76)	31.47 (7.30)	36.03 (7.24)	30.44 (7.48)
	One	173.11 (22.61)	35.17 (5.60)	33.60 (5.69)	35.20 (7.41)	36.86 (5.91)	32.29 (6.61)
	More than one	182.69 (25.16)	39.58 (6.22)	34.17 (7.53)	37.06 (6.82)	38.10 (6.72)	33.77 (6.64)

SAWS = self-assessed wisdom scale

$F(2, 225) = 6.84, p < .001$, partial $\eta^2 = .06$; and no significant interaction between cohort and life difficulty, either for the total SAWS score, or for the five subscales.

Scheffe's post hoc test indicated that students that had estimated their lives as difficult scored higher in the total SAWS (Table 3) than students that had assessed their lives as easy ($p < .001$) or as difficult as others' ($p < .001$). When looking at the SAWS subscales, Scheffe's post hoc test revealed that students that had estimated their life as difficult scored higher in the subscale *experience* (Table 3) than students that had assessed their life as difficult as others' ($p < .001$), while these students had higher scores than those that had estimated their life as easy ($p < .001$). Students that had estimated their lives as difficult scored higher in the subscale *reminiscence/reflection* (Table 3) than students that had assessed their lives as easy ($p < .001$) or as difficult as others' ($p < .001$). Finally, students that had estimated their life as difficult scored higher in the subscale *openness* (Table 3) than students that had assessed their lives as easy ($p < .001$). No significant differences were found on the subscales of *emotional regulation* and *humour* regarding life difficulty.

When wisdom was explored in relation to the cohort and students' assessments of the quantity of difficulties in their lives, again six two-way ANOVA analyses were

performed with a Bonferroni adjusted alpha level of .008 per test (.05/6). The means and standard deviations for the total SAWS scores and scores on its subscales are presented in Table 4.

The two-way ANOVA results revealed no significant main effect for the cohort, either for the total SAWS scores, or for the five subscales; a significant main effect for the quantity of difficulties in life on the total SAWS scores, $F(2, 225) = 14.32, p < .001$, partial $\eta^2 = .11$, and on the subscales *experience*, $F(2, 225) = 31.84, p < .001$, partial $\eta^2 = .22$, *reminiscence/reflection*, $F(2, 225) = 8.19, p < .001$, partial $\eta^2 = .07$, and *openness*, $F(2, 225) = 7.01, p < .001$, partial $\eta^2 = .06$; and no significant interaction between the cohorts and the quantity of difficulties in life, either for the total SAWS score, or for the five subscales.

Scheffe's post hoc test showed that students that reported to have had more than one difficulty in life scored higher in the total SAWS (Table 4) than students that reported to have had none ($p < .001$). When looking at the SAWS subscales, Scheffe's post hoc test indicated that students with more than one difficulty in life scored higher in the subscale *experience* (Table 4) than students that had one difficulty ($p < .001$), while these students had higher scores than students without difficulties in life ($p < .001$). Students that had more than one difficulty in life scored higher in the subscales *reminiscence/reflection* and *openness* (Table 4) than students that had none difficulties ($p < .001$). No significant differences were found on the subscales of *emotional regulation* and *humour* regarding the quantity of life difficulties.

Discussion

Wisdom in different cohorts

Results reveal no differences between the two cohorts of students in wisdom and its five dimensions in the H.E.R.O.(E.) model: humour, experience, reminiscence/reflection, openness and emotion regulation. Also, the cohorts did not show differences in how difficult they estimated their lives to be. The lack of difference in wisdom between the cohorts may be ascribed to the always-present socio-historical challenges. Some major socio-historical developments took place in the decade between them, such as the COVID-19 pandemic, online schooling, the war in Ukraine, earthquakes in Croatia, and even more alarming climate change threats, just to name a few recent ones. Despite this, it seems that the wisdom of the 2022 cohort of emerging adults is not different from the wisdom of the 2012 cohort. It can be assumed that every decade has its critical events that strongly influence the population of a certain region. Besides this societal level, the participants in this research reported that, on a personal level, they had experienced similarly difficult lives in both cohorts. The

result confirms the first hypothesis, and it can be concluded that people always face challenges, interpret them and cope with them, both as individuals and as members of society (Wink & Staudinger, 2016). This can be viewed as a universal and inter-generational characteristic of wisdom development (Hu et al., 2018). Another reason for the lack of differences between cohorts in wisdom can be that the SAWS, as an instrument for measuring wisdom, includes more general items without focusing on concrete events, so wisdom measured in this way reflects a more general viewpoint.

Wisdom and life difficulties

The students' views of how difficult their lives had been manifested an effect on wisdom in both cohorts. Students that estimated their lives as difficult and those who had experienced more than one life difficulty scored higher on the total wisdom scale and on its three subscales: experience, reminiscence/reflection and openness, compared to students that estimated their lives as easy or as difficult as other people's and students that had none or only one difficult life experience. The results confirm the second hypothesis.

Life experiences, especially difficult ones, seem to play an important role in the development of wisdom (Glück & Bluck, 2013). If persons successfully overcome a challenging life situation, they have a better chance of becoming wiser (Bianchi, 2005; Bluck & Glück, 2004; Choi & Landeros, 2011; Glück et al., 2005). It is not the difficult event itself that increases wisdom, but the learning of a lesson from it. Bluck and Glück (2004) and Glück and colleagues (2005) investigated people's autobiographical narratives of situations in which they thought they had been wise. Most people reported difficult situations, such as life decisions or having to deal with an unexpected unfavourable event. Ardel (2005) lists three metastrategies that wise people use when coping with crises and obstacles in their lives: (1) they mentally distance themselves from the situation by taking a step back to relax and calm down; (2) they actively cope with the challenge by reframing, mentally redefine the problems, and take control of the situation in order to solve the problem; and (3) they apply the life lessons that they have learned. Ardel concludes that by learning and accepting that life is unpredictable and uncertain, wise people are better prepared to face new crises and obstacles. So it is very likely that participants with more difficult life experiences in this research have higher results on dimensions of experience and reminiscence /reflection because they have employed efficient coping strategies with difficult life situations.

There is evidence that practicing reminiscence increases psychological resources in young people (Hallford et al., 2022). Personal growth following a loss proves to be relevant for younger adults' ability to reflect on their lives with a sense of purpose

and acceptance (Mroz et al., 2020). The authors suggest that it happens because younger people experience great loss as a non-normative event, so they need to identify ways in which the loss has contributed positively to their personal growth. Being in a life phase that highly emphasises growth, emerging adults are likely to moderate the negativity of the loss so that it does not have an overwhelmingly negative influence on their viewing of life (Mroz et al., 2020).

There is evidence that openness to experience is positively correlated with accommodative processing (Lilgendahl et al., 2013) and perspective-taking, while it is negatively connected with personal distress (Song & Shi, 2017). Research in the context of COVID-19 hardship showed that openness to experience negatively correlated with pandemic-related adversity, general distress, as well as peritraumatic distress (Kroska et al., 2020). Being open to, as opposed to being avoidant of difficult thoughts and emotions, could be a relevant process that encourages emotional well-being and serves as a key path or precursor to wisdom (Leeman et al., 2022).

Two dimensions of wisdom that did not seem to be connected with life difficulties in this study were emotion regulation and humour. A similar result regarding emotion regulation was obtained in research done by Webster and colleagues (Webster et al., 2018). They offered an explanation from a developmental point of view. Namely, students, as emerging adults, may still have, in this developmental stage of life, a weaker capacity to regulate their emotions. Consequently, when faced with stressful or difficult life experiences, they can be emotionally overwhelmed and less able to regulate them, at least temporarily. Later, as the experience is processed, emotion regulation abilities and strategies, including humour, become established or re-established.

Conclusion

Wisdom and its five dimensions in the H.E.R.O.(E.) model: humour, experience, reminiscence/reflection, openness, and emotion regulation, measured with the Self-Assessed Wisdom Scale did not show differences in two cohorts of emerging adults tested ten years apart. The two cohorts also did not differ in how difficult they estimated their lives to be. This invariability of wisdom between the cohorts may be proof that wisdom results from a dynamic interaction of experiences and resources (reminiscence/reflection, emotion regulation, openness) (Glück et al., 2019) in various socio-historical contexts that always provide challenges.

In the dynamic interplay between life hardships and wisdom, the future teachers who estimated their lives as more difficult scored higher in overall wisdom and its dimensions: experience, reminiscence/ reflection and openness, while their emotion

regulation and humour did not seem to be so affected. It can be concluded that wisdom-fostering life events tend to be those that are fundamental to life, with a negative valence (Weststrate et al., 2018).

There are some limitations in the research. The use of self-reports in the measurement of wisdom can be problematic if it is assumed that wisdom includes a high level of self-criticism. As Staudinger and Glück (2011) pointed out, individuals with low wisdom but high self-esteem may describe themselves as much wiser than truly wise individuals would. Also, different methods were used for data collection: paper-and-pencil in the first study and online in the second. However, there has been substantial evidence that such differences in data collection in the case of self-reported interpersonal and intrapersonal measures yield psychometric equivalence (e.g., Björnsdotter et al., 2013; Brock et al., 2012; Doudou & de Winter, 2014).

Since the samples in both studies consisted mostly of female students, the results should not be generalised with regard to gender. Namely, previous research with the same instrument has shown no gender differences (Webster et al., 2014), but there are recent studies that have revealed some dissimilarities (Cheraghi et al., 2021; Webster et al., 2018).

The participants' ages in the samples in this research spanned over 6 and 7 years in the period of emerging adulthood, some being at the beginning and some at the end of their university education. Having in mind that wisdom can correlate with age over that period of life (Webster et al., 2018), further research could explore wisdom and difficulties of life in relation to age within emerging adulthood.

Besides providing evidence that critical life events, which are strongly emotional in tone, are connected with gained wisdom (Glück et al., 2019; Webster et al., 2014), some authors differentiate such events. One group involves the events happening in personal life that are relevant for gaining personal wisdom, and the other comprises indirect experiences related to general wisdom or world knowledge (Staudinger & Glück, 2011). So, as a recommendation for future research, a qualitative approach along with the quantitative would help in understanding the types of those events and possible ways of coping with them. Also, other measures, such as self-esteem, coping strategies, etc., should be included for a better understanding of their connectedness with wisdom.

The results in this research contribute to the H.E.R.O.(E.) model by providing evidence that wisdom in two cohorts of the same age but a decade apart is affected by difficult life events as a whole as well as in the majority of its dimensions. It also contributes to the model by proving that wisdom, defined as the "competence in, intention to, and application of critical life events to facilitate optimal development in self and others" (Webster, 2010, p. 71), can be well measured with the SAWS, as it

assesses a general competence adaptive in various historical contexts. Further, this research sheds more light on wisdom in the developmental stage of emerging adulthood. It reveals that people in this period are sensitive to recognising life difficulties and that this experience can be connected with the gained wisdom. It is especially important since this period in life seems to be crucial for the accumulation of many major life events (Weststrate & Glück, 2017). The findings in this research also confirm that measures with only two items, such as the ones that were used for exploring life difficulties, are reliable and valid in the samples of emerging adults applied at different times of assessment.

Having in mind that participants in this research are future teachers and that they are in a stage of their lives when their capacity to grow wise is high, it would be a good moment to inspire them to implement their various competences to enhance the well-being of themselves, their future students, and subsequently the broader community (Webster, 2014). Although wisdom develops informally without specific and formal guidance or intervention, formally structured, intentional educational approaches can be created to contribute to its growth (Webster, 2022). Some attempts in higher education showed that such a contribution is possible (e.g., Ardel, 2020; Bruya & Ardel, 2018; Stenberg & Maaranen, 2022).

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Mudrost budućih učiteljica i učitelja i teška životna iskustva

Sažetak

Websterov H.E.R.O.(E.) model mudrosti korišten je kako bi se istražilo razlikuju li se studenti/studentice, buduće učiteljice/učitelji, iste dobi, ali u dvije kohorte, po mudrosti i njezinim dimenzijama te razlikuje li se njihova mudrost ovisno o tome koliko smatraju da je njihov život težak. U kohortu iz 2012. godine uključeno je 116 studentica/studenata prosječne dobi 21,54 godine, a u kohorti 2022. godine sudjelovalo je ih 115 prosječne dobi 21,17 godina. Mudrost je mjerena Websterovom ljestvicom samoprocjene mudrosti (SAWS). Rezultati ne otkrivaju razlike između dviju kohorti u mudrosti i njezinih pet dimenzija u H.E.R.O.(E.) modelu. Studentice/studenti koji su svoj život procijenili težim, imaju više rezultate na ukupnim rezultatima mudrosti i na većini njezinih dimenzija (iskustvo, reminiscencija/refleksija, otvorenost), osim u regulaciji emocija i humoru.

Ključne riječi: humor, nevolja, otvorenost, refleksija, regulacija emocija, reminiscencija, SAWS