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## **Croatian expert's opinion about measuring well-being of children and young people – results of the Delphi survey**

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### *Abstract*

*The aim of this study was to examine the opinion of Croatian experts about the feasibility and desirability of conducting a longitudinal study of the well-being of children and young people (CYP) using the Delphi method. Participants were 30 Croatian experts who in different ways professionally deal with CYP. They completed three different questionnaires in two rounds from October 2014 to February 2015. The first questionnaire included questions that may be of relevance for conducting a longitudinal study of well-being with CYP. The second and third questionnaires were focused on the evaluation of options and the assessment of criteria against which options were assessed. Delphi procedure has been shown to be valuable for achieving a consensus among experts. Results of Delphi study clearly showed that Croatian experts associated well-being with mental and physical health, financial security and employment, social/personal network and family, material conditions and happiness. The majority of experts thought that a longitudinal study should focus on the entire life-course of a young person, from birth to the age of 25. Half of them would prefer the use of both subjective and objective measures of well-being. They preferred an accelerated cohort design with an interval of 3 years between waves and a total length of the study between 10 and 15 years. The large majority of experts indicated that a cross-European longitudinal study of well-being of CYP is desirable and that evidence from such a study would contribute to improving the well-being of CYP.*

*Keywords: Well-being, Delphi method, Longitudinal study, Children, and youth, Measuring Well-being*

Over the last 30 years, there has been a considerable growth in the research on well-being that has greatly contributed to our understanding of optimal human functioning (Diener, 2012; Huppert, 2009). Well-being is in contemporary literature used as an over-arching concept describing how an individual evaluates his or her life (Diener, 2006; Rees, Bradshaw, Goswami, & Keung, 2010). These evaluations include cognitive judgments about life satisfaction, affective reactions to life events, interest and engagement, and satisfaction with specific domains such as relationships, health, recreation, and meaning and purpose (Diener, Oishi & Ryan, 2013). In defining the concept of well-being, a distinction is made between the hedonic and eudaimonic approaches (Ryan & Deci, 2001). The first of these reflects the view that well-being consists of pleasure versus displeasure, or happiness (Diener & Lucas, 1999), while the second view is that well-being lies in the actualization of human potentials and defines well-being in terms of the degree to which a person is fully functioning (Ryan & Deci, 2001). The recent literature suggests that well-being is probably best conceived as a multidimensional phenomenon that includes aspects of both the hedonic and eudaimonic concepts of well-being (Biswas-Diener, Kashdan, & King, 2009; Proctor, Tweed, & Morris, 2014).

When it comes to measuring well-being a distinction is made between 'objective' and 'subjective' measures. Objective measures are considered to be independent of personal evaluations, while subjective ones express subjective states such as perceptions and preferences (Noll, 2013). Although objective measures can provide useful information on well-being, there are many criticisms to be taken into account when using such measures (McGillivray, 2007; Pollard & Lee, 2003). Hicks (2011) argues that the most dangerous situation in using objective well-being measures is that what is measured becomes what matters, rather than what matters being measured. He explains that when using objective well-being measures we unduly assume that certain things are good or bad for well-being. On the other hand, the subjective well-being measures offer people the chance to report on the quality of their own lives, reflecting their own histories, personalities, and preferences. In this light, the subjectivity is to be seen as a strength rather than weakness (Helliwell, Layard & Sachs, 2013).

In line with the research on general population, there is an increased interest in the study of the well-being of children and youth, with the aim to explore what are the best policies and approaches to effectively promote the well-being of children and young people (CYP). Although there are numerous indicators of children's well-being collected by different countries, the systematic measurement of CYP's well-being is a relatively new area of research (UNICEF, 2013). Goswami, Fox and Pollock (2016) reviewed three different approaches used in existing studies of CYP's well-being: (1) the wider social indicator movement which focuses on measurements of well-being using primarily available indicators such as child poverty rates, injuries, educational attainment etc., (2) measuring child well-being through self-report surveys, and (3) approach focused on developing concepts and frameworks which incorporate children's perspectives. Each of these approaches has its advantages and disadvantages, but authors believe that the third one should be further developed since, in addition to being "children and young people- centric", this approach focuses on the subjective measures in well-being research and reflects a major paradigm shift in child well-being research (Goswami et al., 2016; Mason & Danby, 2011).

Methodological approach and/or indicators to be used to measure CYP's well-being are still a matter of debates, despite the fact that several longitudinal studies have been conducted so far (Ciarrochi, Heaven, & Davies, 2007; Luoma et al., 2001; Olsson, McGee, Nada-Raja, Williams, & Olsen, 2013; Shek, 1998). In order to fulfil the gap in the literature considering the methodological approach to measure CYP's well-being, the European project involving 14 partner organisations in 11 EU countries was conducted from 2014 to 2016. The goal of the MYWEB project (Measuring Youth Well-being), funded by the European Commission, was to assess the availability of existing data, to assess the priorities of public policies aimed at the CYP's well-being, and to develop methodological challenges for the implementation of future longitudinal studies in the EU. One of the specific aims of the projects was to examine the opinions of national experts about the feasibility and desirability of conducting a longitudinal study of CYP's well-being using the Delphi method. In this paper, we shall present the opinions of Croatian experts in that matter.

Delphi method is based on the process of gathering knowledge of a group of experts through a structured process that uses a series of questionnaires or "rounds" to gather information. Rounds are held until group consensus is reached (Green, Jones, Huges, & Williams, 1999). Questionnaires completed by experts are combined with controlled opinion feedback so that the technique provides a reliable and creative expression of ideas (Adler & Ziglio, 1996). The Delphi process facilitates creative and informed decision-making in such circumstances. The Delphi technique begins with the development of a set of open-ended questions on a specific issue, which are then distributed to various experts. The responses to these questions are summarised and serve as a basis to formulate the second and third set of questions that seek to clarify areas of agreement and disagreement. The new questionnaires are then distributed to

the same group of experts. The main advantage of this method is that it is useful when time and cost considerations make it impractical to bring together a wide range of geographically dispersed experts for a series of meetings. Further, it is conducted in writing and does not require face-to-face meetings, responses can be made at the convenience of the participant, and it is relatively free of social pressure and personality influence. Iteration enables participants to review, re-evaluate and revise all their previous statements in light of comments made by their peers. (Adler & Ziglio, 1996; Delbecq, Van de Ven, & Gustafson, 1975; Donohoe, Stollefson & Tennant, 2001). Possible disadvantages of Delphi technique are that information comes from a selected group of people and may not be representative, extreme positions may be eliminated, and participation requires skills in written communication, adequate time and participant commitment (Adler & Ziglio, 1996; Green, Jones, Huges, & Williams, 1999).

Delphi technique has been widely used since the late 1970s mainly for the purposes of strategic management, planning and development in industry (Benson, Hill & Hoffmann, 1982; Loo, 2002), and in healthcare sectors (Grimes & Moseley 1976; Starkweather, Gelwicks & Newcomer, 1975; Boulkedid, Abdoul, Loustau, Sibony & Albert, 2011). In a systematic review of Delphi method used for selecting healthcare quality indicators, 1241 articles were retrieved, most of which published in the last decade (Boulkedid et al., 2011). As the main advantage of the technique authors emphasise its value for achieving a consensus about issues where none existed previously. The search of Croatian databases of scientific literature (CROSBI; Hrčak) revealed several studies using Delphi technique in the field of tourism (Kaynak & Čavlek, 2007), market research (Galetić & Prester, 2006; Renko et al., 2013), education (Ljubetić, Visković & Slunjski, 2014; Visković, 2016), psychosocial care provision (Bisson et al., 2010; Pears et al., 2012) and healthcare management (Sičaja, Romić, & Prka, 2006; Vrcić Keglević, Kovačić, & Pavleković, 2014). To the best of our knowledge, the Delphi technique has not previously been used in the field of children's well-being.

The present study was conducted with the aim to examine the opinion of Croatian experts who in different ways professionally deal with children and young people, the concepts and indicators of well-being, as well as the feasibility, methodological challenges and desirability of conducting a longitudinal study of children and young people's well-being in Europe. The experts' opinions on these matters are especially valuable in determining a suitable strategy to collect and use data on CYP's well-being. Therefore, the participants were carefully chosen to cover expertise in those fields/sectors that are expected to benefit from using data of a potentially new longitudinal study (government, local/regional authorities, NGOs, academia and practice).

## Method and material

### Subjects

Participants were 30 Croatian experts who in different ways professionally deal with children and young people (CYP). They were selected to ensure the coverage of relevant issues and included policy-makers, experts, academics and researchers with an interest in CYP. Delphi respondents worked in research/academia (n=11, 37%), national or local government agencies (n=6, 20%), non-governmental organisations (n=3, 10%), private sector organisations (n=1, 3%) and other types of organisations (n=9, 30%). Their expertise covered the fields of social care, education, health, economics, justice and research in children/family issues. Three questionnaires were issued to all participants in two distinct phases (N<sub>1</sub> (1<sup>st</sup> round) = 30, N<sub>2</sub> (2<sup>nd</sup> round) = 28, N<sub>3</sub> (2<sup>nd</sup> round) = 28) with questions about the methodological challenges in researching the well-being of CYP. Response rates were satisfying, 90.9% in the first questionnaire, 84.8% in the second and 84.8% in the third questionnaire. The anonymity of all participants was guaranteed.

### Instruments

Questionnaires to be used in the study were designed by an international group of researchers after a systematic review of scientific literature in the field, a review of relevant EU policies, and interviews and focus groups with CYP (MYWEB, 2017a). Review of scientific literature included 121 articles on well-being and 75 on survey methodology. Mapping of existing policies included 256 EU policies and 827 sources of data. Interviews and focus groups with CYP included 440 CYP in eleven EU countries, including Croatia (MYWEB, 2017a). After systematic analyses of these data, the questionnaires to be used in Delphi were designed.

The first questionnaire included questions about key issues about the well-being of CYP and all additional information that may be of relevance for conducting a longitudinal study of well-being. Different options for implementation of the longitudinal study were offered. Experts were asked to critically examine the questions and suggestions and to add the information considered relevant.

The second and third questionnaires included questions to evaluate the data collected from experts in the first phase and were focused on refining the long-list of options and the long list of assessment criteria against which options were assessed. The questionnaires included different types of questions, dichotomous, multiple choice, scaled and open-ended questions which were used for qualitative analyses.

## Procedure

Delphi survey was conducted between October 2014 and February 2015. Three questionnaires were issued to participants in two distinct phases: exploratory phase (first questionnaire) and evaluation phase (second and third questionnaires). An invitation letter was sent via email to all participants for every series of questionnaires with a link to the questionnaire. Interviews were conducted on-line in the English language. Croatian research team was responsible for selecting experts in a national survey and for distributing the questionnaires. Consent was obtained from participants each time of collecting data. Participation was voluntary and therefore participants could withdraw their consent anytime. Access to personal data, including interviews, is given only to members of research team and is kept confidentially. The average time for completing a questionnaire was between 20 and 40 minutes depending on the depth of the input participants wanted to provide.

## Results

The objective of the study was to assess the feasibility and desirability of conducting a longitudinal study of the well-being of children and young people using the Delphi procedure. In the analyses we focused on five aspects: the concept of well-being, indicators of well-being, defining the sample for the future survey, possible CYP participation, survey methodology, sustainability and technical feasibility. The descriptive statistics and some qualitative data analyses are presented.

### The concept of well-being

Before going into the discussion of methodological possibilities for conducting a longitudinal study, experts were asked to cite five keywords or phrases they associate with well-being. The words/phrases the most often cited (Figure 1) were related to mental and physical health, financial security and employment, social/personal network and family, material conditions and happiness. Although categories of financial security and material conditions seem to belong to the same category, by the wording of experts these categories form quite distinct concepts. The category “financial security and employment” was associated with actual and future security of household’s income, while the category “material conditions” was associated with wealth and material things people own or are deprived of. Therefore, we thought it would be important to make a difference between these two categories.

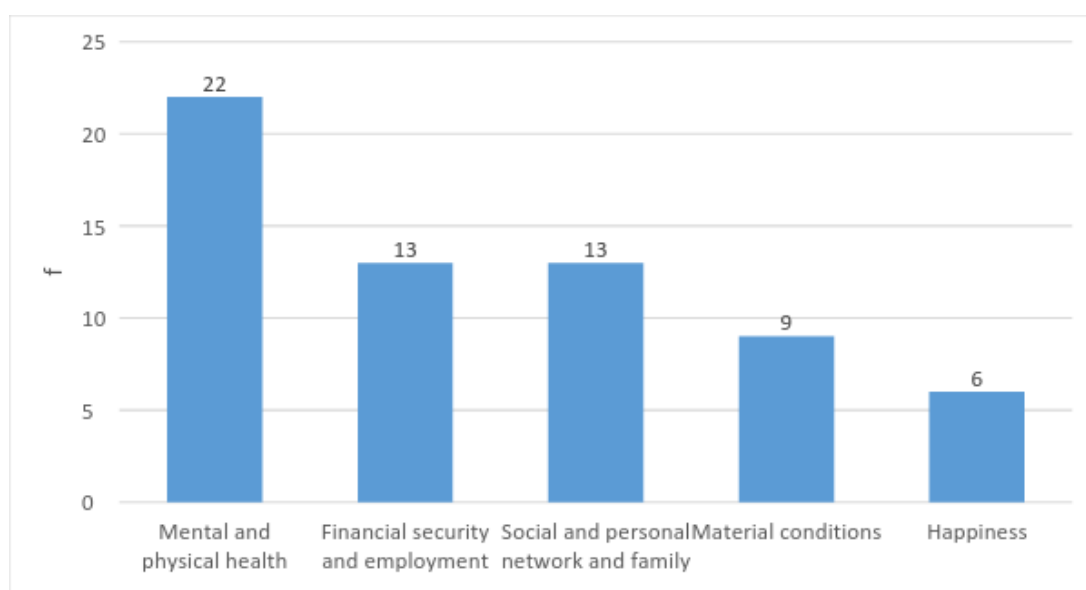


Figure 1. Five most important keywords or phrases associated with well-being

The OECD (OECD, 2013) distinguishes between three indicators of well-being (three pillars of well-being): material conditions, sustainability of quality of life and the quality of life. All three indicators were by Croatian experts considered important (answers important or very important): the most important being quality of life (100%) and its sustainability (90%). It is interesting to note that when considering what is very important for the well-being the majority of respondents (86.7%) agreed that it was quality of life, while only 20% thought that material conditions were very important.

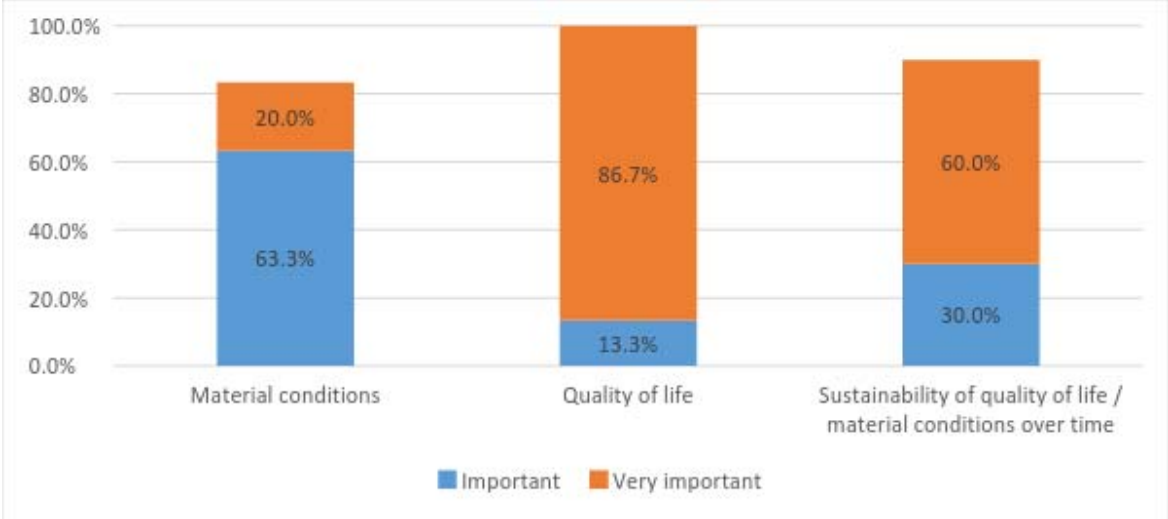


Figure 2. Importance of OECD pillars of well-being

As an illustration of typical opinion one respondent working in a research institution said: *“Quality of life is a subjective measure and therefore important for well-being. It is a perception of life that is important, rather than “objective” material conditions, as one with material wealth doesn’t have to perceive his life as good.”*

When asked about the types of indicators to be used in a future longitudinal study half of the respondents (50%) indicated that both objective and subjective measures of well-being should be taken into account with equal weight to both types.

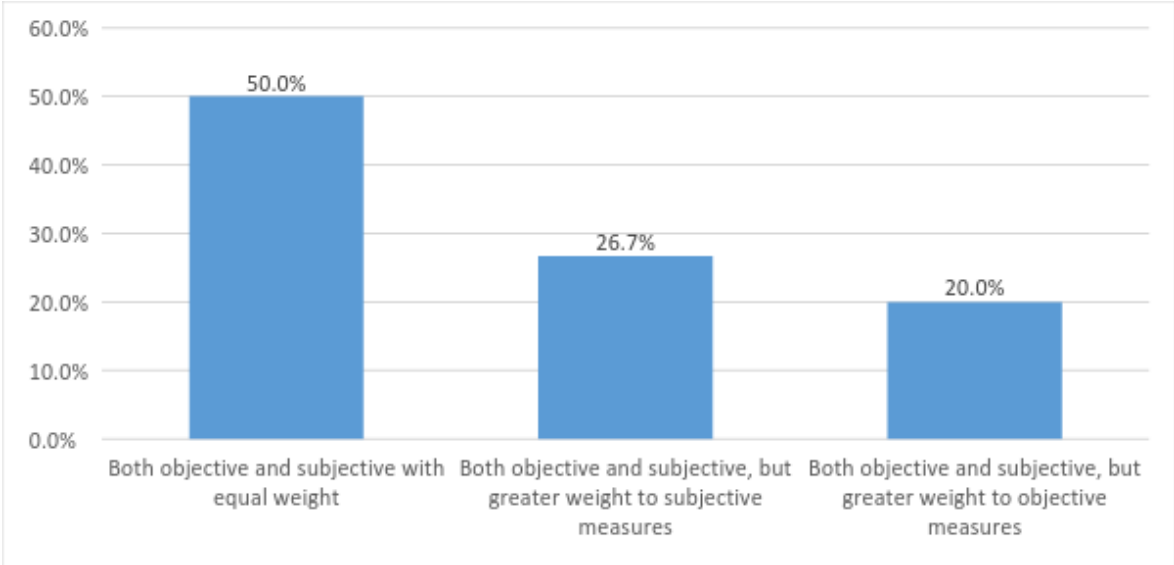


Figure 3. Preferred option for longitudinal survey (objective vs subjective measures)

Opinion from a respondent working in an NGO: *“Generally, I think that both dimensions have to be incorporated in any type of longitudinal study if we are to grasp such a rich and complex concept as well-being. Putting more emphasis on either of the measures (objective vs. subjective) has its advantage only if it is justified by specific research objectives.”*

### Defining the sample

Goswami et al. (2016) pointed out that the age of children that a future longitudinal survey wishes to recruit as respondents will have a major impact on the chosen methods and design of research tools. They argue that the decision about the recruited age group also has an impact on the length and content of the survey questionnaire. It is clear that research about the well-being of CYP involves significant methodological challenges, but if we want to conduct a methodologically robust study, what age group should we focus on? The majority of Croatian respondents (73.3%) agreed that a longitudinal study should focus on the entire life-course of a young person, from birth to the age of 25.

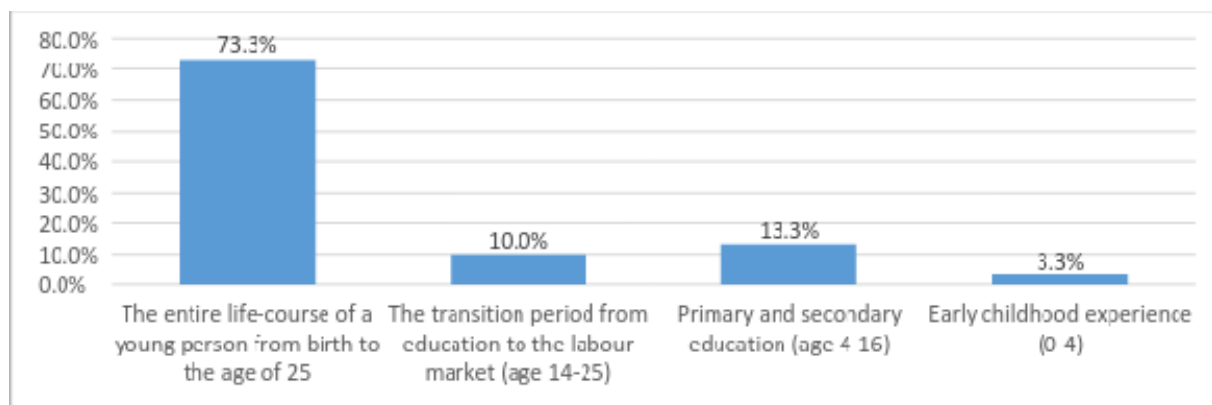


Figure 4. Age group survey focus

A respondent from NGO children’s rights institution said: *“If the target group are children and young people than the answer is 0-25. The life-course from 0 to 18 corresponds to the definition of the child in the Convention of the children’s rights. Young people are persons from 18 to the age of 25.”*

### Defining indicators of well-being

The concept of well-being is a multidimensional construct. Some of the most surveyed dimensions when considering well-being are personal well-being, relationships with peers, family and home, health, time use, community and neighborhood, money and possessions, personal appearance, education and skills, competence, autonomy, purpose in life and amount of choice. Experts were asked to rate for each of the mentioned dimensions whether it could be better captured through standardised European measures or through nationally specific measures. Most of the Croatian experts (76.7%) agreed that it would be necessary to complement the European measures of well-being with issues specific to different countries. These opinions were in detail elaborated in round 2 of the Delphi study. As a result, the majority of experts believed that standardised European measures would be appropriate for capturing all of the domains of well-being, except “community and neighbourhood”, which would be better captured by country- specific measures. It is interesting to note the ranking of the measures to be captured by standardised European vs. country- specific measures. By experts opinion the domains of education and skills, health, competence and personal well-being reached a consensus of more than 70% of experts that would be better captured by standardised European measures. On the other hand, domains of family and home, purpose in life, and especially community and neighbourhood were not so strongly agreed whether to be better captured by European or country- specific measures.

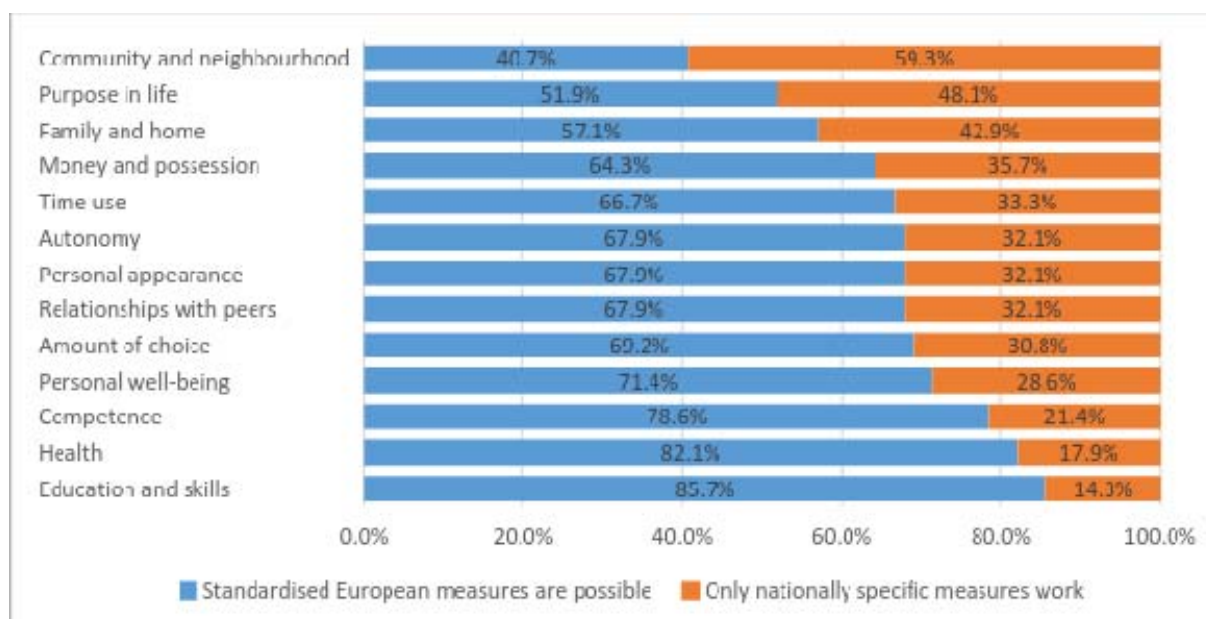


Figure 5. Different domains of well-being captured through standardized European measures or country specific measures

With the aim to elaborate in more detail the question on country specific measures to be used in future surveys, experts were asked about this topic again in round 3 of Delphi survey. The majority of Croatian experts (90.9%) thought that it would be necessary to develop a classification of neighbourhoods taking into account different contextual variables such as marital status, household composition, accommodation type, size of households, educational attainment of household's members etc. which would measure community and neighbourhood as a part of children's well-being.

### Children and young people's participation

Children and young people could be involved in research in different ways: as respondents, consultants, collaborators or as owners of the research data (Shaw, Brady & Davey, 2011). Respondents in our study were asked if indicators of well-being should be defined in cooperation with CYP. Most of the Croatian experts agreed that the children (90%) and young people (90.2%) should be included into designing the research instrument.

A respondent from an NGO: *"Adults often think that they know everything about children. Children are not miniature adults, they have their own world and their needs, therefore, we should ask them about it."*

Nevertheless, some experts (10%) hold that it could be difficult to include very young children in this process. (An NGO respondent: *"With children at a younger age it is not easy to find ways and methods for their direct participation in designing the research instrument."*).

Another important question considering the design of a longitudinal study was whether complementary qualitative interviews and incentives should be used. Most of the experts (85.7%) agreed that measuring the well-being of CYP should include additional qualitative interviews in which participants can express their views. Most of the experts (71.4%) also agreed that incentives should be used to enhance participation.

An important question in designing a longitudinal study with CYP is whether views from parents and primary carers should also be included. Half (50%) of the respondents agreed that evidence measuring CYP's well-being should always include views from parents and primary carers, especially when participants are children of preschool age. There were, however, several experts who were skeptical about including parents and primary carers as a source of information about CYP's well-being (A respondent from academic/research institution: *"Not all parents/carers are aware of their children's needs, views, etc. So, children's active role is very important"*).

## Study methodology

Next important aspect in designing a longitudinal study measuring the well-being of CYP is studying methodology. In the first Delphi round experts were choosing between two different study designs for the longitudinal study. There is no strong agreement on the most suitable design, about half of the Croatian experts indicated that most suitable design would be a household panel design which is based on a sample of individuals/households, and seeks to discover what happens/has happened to the same people/households over a certain period of time. About 40% of experts indicated that the most suitable design would be a cohort design which is the aggregate of individuals who experience the same life event within the same time interval. Another 10% thought that the study should be a combination of panel and cohort design.

Respondents' comments show indecision among the Croatian experts regarding the study design. A respondent from academic/research institution said: *"Although cohort design is more economic, I would prefer panel design, because it is methodologically stronger*, while a respondent from NGO thought that *"Cohort design is easier to be sustainable"*. A respondent from public employment service: *"Combination - cohort design including households of targeted persons"*.

To clarify the preferred study design and to get a good methodological solution, in the second round of Delphi survey respondents had to rate on a 5-point scale (1= not at all; 5=very desirable) the desirability of the following options: (a) a narrow age sample which traces a single age cohort as they grow up, (b) a wide age sample which traces a series of age cohorts as they grow up and c) an accelerated cohort design. In a single longitudinal cohort design a group of individuals at the same initial age is followed over time, while in an accelerated longitudinal cohort design multiple single cohorts, each one starting at a different age, are followed (Galbraith, Bowden & Mander, 2014). Authors argue that the main advantage of an accelerated longitudinal cohort design is its ability to span the age range of interest in a shorter period of time than it would be possible with a single cohort design, and therefore it should be less affected by dropout. The potential disadvantage is the possible existence of a cohort effect, a systematic difference between people born at different times (Galbraith et al., 2014).

Croatian experts preferred the accelerated cohort design ahead of a wide age sample which does not differentiate specific age cohorts and/or a narrow age based study which traces a single age cohort as they grow up.

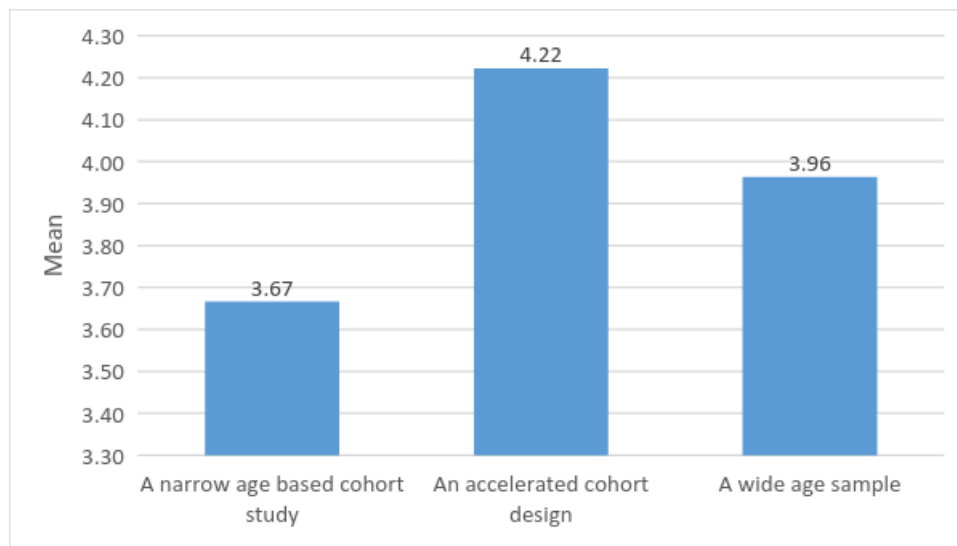


Figure 6. Study design options rated for desirability

The next important aspect in designing a longitudinal study is the interval between two data collections. If the interval is too long, important changes can be missed, but if the interval is too short unnecessary cost can occur. Almost a third of respondents (29.6%) indicated that the study should take place every 3 years, while about a quarter of them (25.9%) indicated that 5 years would be the preferable interval. The least preferable interval to the Croatian experts was once a year.



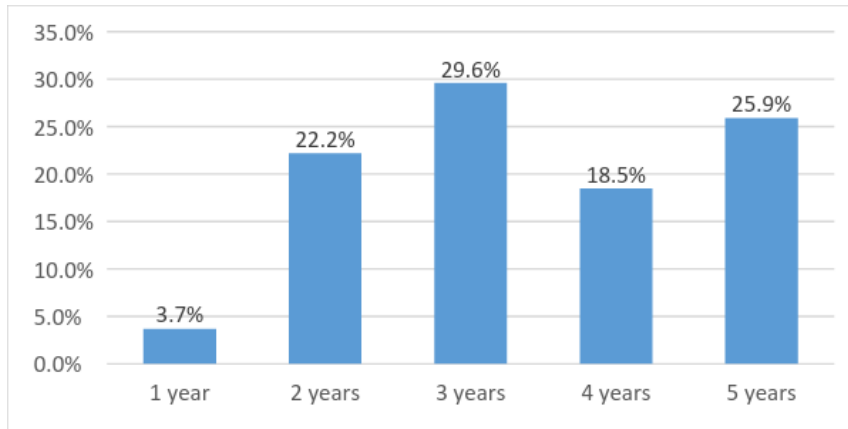


Figure 7. Preferred interval between data collection

When considering the total length of the study, the most preferred option for the Croatian experts was 10 to 15 years (34.6%), while one-fifth of them indicated a longer period (21-35 years) and another fifth unlimited time for the study (19.2%).

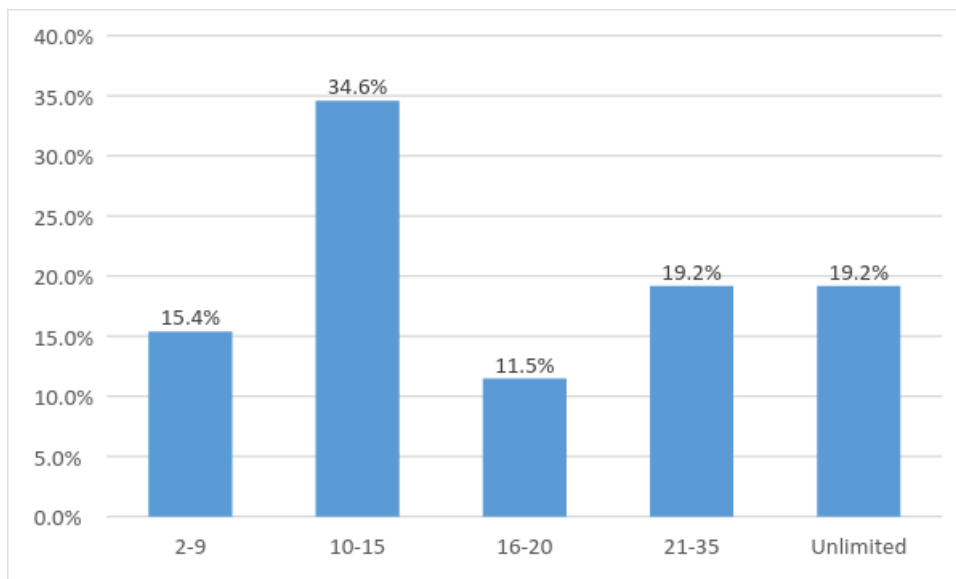


Figure 8. Length of the study

### Sustainability and technical feasibility of the study

In designing a longitudinal study three criteria were used against which Croatian experts could assess feasibility. The great majority (80%) agreed that a longitudinal study is desirable. About half of them (56.7%) agreed that conducting a longitudinal study was technically feasible and financially sustainable (46.7%).

Qualitative comments also point to the conclusion that a longitudinal well-being study with CYP is desirable, financially sustainable and technically feasible despite the fact that a number of experts doubted its financial feasibility.

A respondent from health organization: *"I believe that technical skills and material resources should be developed and used no matter what is the cost, because of the importance of this issue."*

A respondent from academic/research institution: *"It would be very demanding and expensive, but I believe that it is possible to conduct it."*

When considering technical feasibility, respondents agreed that there should be no shortcomings regarding the implementation of consistent fieldwork practice, keeping the sample members in future

data collection phases, getting parental consents, managing a large and complex data set and having a representative sample study in each country.

The large majority of respondents (95.8%) agreed that evidence from a longitudinal well-being study of CYP would contribute to improving their well-being, and 92.6% thought that longitudinal data would allow policy makers to improve policy design and impact and would make policies aimed at improving child well-being more effective and efficient. Also, a large majority of respondents (96.2%) agreed that it was reasonable to assume that the economic benefits of improved CYP's well-being exceed the cost of implementing a longitudinal study.

## Discussion

In recent years we are witnessing a rising interest in research of individual's as well as nation's well-being (Diener et al., 2016). This growing interest in research can be partly attributed to the interest of policy makers in this area. Subjective well-being is increasingly considered as a proper measure of social progress and a goal of public policy (Hallivell, Layard and Sachs, 2015). Several European surveys are conducted regularly, allowing the monitoring of trends in the well-being of adult population across European countries (for a detailed review see Noll, 2008). However, there is a lack of comparable data on the well-being of children and young people. A systematic review of the literature on the research of the CYP's well-being by Goswami et al. (2016) described quite a number of national surveys conducted in several countries, but only a few which allow comparisons across different countries. Most of these studies include only a limited number of well-being domains, the concepts of well-being were developed primarily from concepts which originated from the studies of adult well-being, and are primarily cross-sectional in nature and therefore unable to detect age-related developmental changes (Goswami et al., 2016). In order to fill the gap in existing knowledge of the well-being of CYP, the group of researchers from eleven EU countries conducted a project which looks at the feasibility of beginning a new longitudinal study to collect comparable EU data on the well-being of CYP.

The objective of this study was to examine the opinion of the Croatian experts about the feasibility and desirability of conducting such a large longitudinal study, using Delphi method. Results showed that the large majority of Croatian experts, who professionally deal and/or are interested in using data on CYP's well-being, believe that evidence from a longitudinal study will contribute to improving the well-being of CYP (96% experts agree) and think that such a study is highly desirable (80% agree). However, as there are many challenges of realizing such a large study, they realistically have doubts about its technical feasibility and financial sustainability (57% agree that it is technically feasible and 47% that it is financially sustainable). When it comes to technical details about conducting a longitudinal study, most of the Croatian experts agreed that children (90%) and young people (90.2%) should be included in designing the research instrument. As a study design, they preferred the accelerated longitudinal cohort design in which multiple cohorts, each one starting at a different age, are followed over a period of time. Croatian experts believe that the study should include the entire life-course of a young person, from birth to the age of 25 and should last between 10 and 15 years with repeated measurements every 3<sup>rd</sup> year.

The opinions of the Croatian experts complement the opinions of experts obtained by the same technique in other EU countries (Greece, Spain, Latvia, Georgia, Portugal, Hungary, United Kingdom, Estonia, Germany, Slovakia, Cyprus, Ireland, Belgium, Czech Republic, Italy, Luxembourg, Austria, France, and Romania), as well as experts from European institutions. There were in total 334 experts involved in this part of the larger project. The main conclusion obtained is that the well-being of CYP is of high relevance and should be systematically monitored through a longitudinal cross-European survey which is desirable, feasible and would offer great benefits for policy makers (MYWEB, 2017a). Data obtained by such survey will be invaluable for the EU member states for the monitoring and evaluating of the existing policies on children and young people's well-being and developing future evidence-based decision making (Goswami et al., 2016).

The main limitation of this study is that it represents in a way "wishful thinking". The Croatian experts, as well as the experts from other EU countries, expressed their need for comparable data on the well-being of CYP, but at the same time expressed concerns about the financial aspects of a new cross-European longitudinal survey. The decision about the implementation of such a survey should be made by the EU and its member countries' institutions and policy makers which did not participate in this study. In order to raise the policy awareness of the need to identify and assess the comprehensive set of CYP well-being indicators that should be regularly monitored through a well-designed longitudinal study, the MYWEB project produced short policy briefs from each member of the consortium (MYWEB, 2017b) to be distributed to the media, policy makers, researchers and institutions dealing with CYP.

Delphi method, which is not widely used in Croatia, proved to be a useful technique to obtain opinions of experts from different fields about many important issues regarding the design of a longitudinal study on the well-being of CYP. The participants were carefully chosen to cover expertise in those fields that are expected to benefit the most from using the data on CYP's well-being. It should be stressed that the response rate of Croatian experts was very high (91% in the first round and 85% in the second and third), indicating their interest in the survey. In that respect, the Croatian experts made a valuable contribution to the European research on children's and young people well-being.

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## References

- Adler, M., & Ziglio, E. (1996). *Gazing into the oracle: The Delphi method and its application to social policy and public health*. Jessica Kingsley Publishers.
- Benson, P., Hill, A., & Hoffmann, T. (1982). Manufacturing systems of the future – a Delphi study. *Production & Inventory Management*, 23(3), 87-105.
- Bisson, J. I., Tavakoly, B., Witteveen, A.B., Ajduković, D., Jehel, L., Johansen, V. J., Nordanger, D., Orengo, G., Francisco, P., Raija, L., Schnyder, U., Sezgin, A.U., Wittmann, L., & Olf, M. (2010). TENTS guidelines: development of post-disaster psychosocial care guidelines through a Delphi process, *British Journal of Psychiatry*, 196(1), 69-74.
- Biswas-Diener, R., Kashdan, T. B., & King, L. A. (2009). Two traditions of happiness research, not two distinct types of happiness. *The Journal of Positive Psychology*, 4(3), 208-211.
- Boulkedid, R., Abdoul, H., Loustau, M., Sibony, O., & Albert C. (2011). Using and Reporting the Delphi Method for Selecting Healthcare Quality Indicators: A Systematic Review. *PLoS ONE*6(6).
- Ciarrochi, J., Heaven, P.C.L., & Davies, F. (2007). The impact of hope, self-esteem, and attributional style on adolescents' school grades and emotional well-being: A longitudinal study. *Journal of Research in Personality*, 41, 1161-1178.
- CROSB. Croatian Scientific Bibliography. Available at: <https://bib.irb.hr/index.html?lang=EN>
- Delbecq, A. L., Van de Ven, A. H., & Gustafson, D. H. (1975). *Group techniques for program planning: A guide to nominal group and Delphi processes*. Scott Foresman.
- Diener, E. (2006). Guidelines for national indicators of subjective well-being and ill-being. *Applied Research in Quality of Life*, 1, 151-157.
- Diener, E. (2012). New findings and future directions for subjective well-being research. *American Psychologist*, 67(8), 590-597.
- Diener, E., & Lucas, R. E. (1999). Personality and Subjective Well-Being. In: Kahneman, D., Diener, E., & Schwarz, N. (Eds.): *Well-Being: The Foundations of Hedonic Psychology* (pp. 213-29). New York: Russell Sage Found.
- Diener, E., Oishi, S., & Ryan, K.L. (2013). Universals and cultural differences in the causes and structure of happiness: A multilevel review. In: Keyes C.L.M. (ed.) *Mental Well-Being: International Contribution to the Study of Positive Mental Health*. Dordrecht: Springer.
- Diener, E., Heintzelman, S. J., Kushlev, K., Tay, L., Wirtz, D., Lutes, L. D., & Oishi, S. (2016). Findings All Psychologists Should Know From the New Science on Subjective Well-Being. *Canadian Psychology/Psychologie canadienne*. Advance online publication. <http://dx.doi.org/10.1037/cap0000063>
- Donohoe, H., Stollefson, M., & Tennant, B. (2012). Advantages and limitations of the e-Delphi technique: Implications for health education researchers. *American Journal of Health Education*, 43(1), 38-46.
- Galbraith, S., Bowden, J., & Mander, A. (2014). Accelerated longitudinal designs: an overview of modelling, power, costs and handling missing data. *Statistical methods in medical research*, 26(1), 374-398
- Galetić, L., & Prester, J. (2006). Manufacturing in Europe and Croatia till 2020: the forecasts of MANVIS delphi research. *Ekonomski pregled*, 57(3-4), 195-226.
- Green, B., Jones, M., Hughes, D., & Williams, A. (1999). Applying the Delphi technique in a study of GPs' information requirements. *Health and Social Care in Community*, 7, 198-205.
- Goswami, H., Fox, C., & Pollock, G. (2016). The Current Evidence Base and Future Needs in Improving Children's Well-Being Across Europe: is There a Case for a Comparative Longitudinal Survey?. *Child Indicators Research*, 9, 371-388.

- Grimes, R.M., & Moseley, S.K. (1976). An approach to an index of hospital performance. *Health Services Research, 11*, 288–301
- Helliwell, J. F., Layard, R., & Sachs, J. eds. (2013) *World Happiness Report 2013*. New York: Sustainable Development Solutions Network.
- Helliwell, J. F., Layard, R., & Sachs, J. (2015) *World Happiness Report 2015*. New York: Sustainable Development Solutions Network.
- Hrčak. Central portal of Croatian scientific journals. Available at: <http://hrcak.srce.hr/?lang=en>
- Hicks, S. (2011). *The Measurement of Subjective Well-Being. Paper for Measuring National Well-Being*. Technical Advisory Group. Newport: ONS.
- Huppert, F. A. (2009). Psychological Well-being: Evidence Regarding its Causes and Consequences. *Applied Psychology: Health and Well-Being, 1*(2), 137-164.
- Kaynak, E., & Cavlek, N. (2007). Measurement of tourism market potential of Croatia by use of Delphi qualitative research technique. *Journal of East-West Business, 12*(4), 105-123.
- Loo, R. (2002). "Delphi method: a powerful tool for strategic management", *An International Journal of Police Strategy & Management, 25*(49), 762.
- Luoma, L., Tamminen, T., Kaukonen, P., Laippala, P., Puura, K., Salmelin, R., & Almqvist, F. (2001). Longitudinal Study of Maternal Depressive Symptoms and Child Well-Being. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(12) 1367-1374.
- Ljubetić, M., Visković, I., & Slunjski, E. (2014). More successful education of preschool teachers by consensus—the Delphi method. *International Journal of Physical and Social Sciences, 4*(4), 217-237.
- Mason, J., & Danby, S. (2011). Children as experts in their lives: child inclusive research. *Child Indicators Research, 4*, 185–189.
- McGillivray, M. (2007). Human Well-being: Issues, Concepts and Measures. In: M. McGillivray, (Ed.): *Human Well-Being: Concept and Measurement*. Basingstoke, UK: Palgrave MacMillan.
- MYWEB (2017a). Measuring youth well-being. European Commission funded project received funding under its 7th framework programme. Available at: <https://fp7-myweb.eu/pdfs/MyWeb%20final%20flyer.pdf> (Retrieved on February 28, 2017)
- MYWEB (2017b). Measuring youth well-being. European Commission funded project received funding under its 7th framework programme. Available at: [https://www.fp7-myweb.eu/policy\\_briefs.html](https://www.fp7-myweb.eu/policy_briefs.html) (Retrieved on March 8, 2017)
- Noll, H-H. (2008). European Survey Data: Rich Sources for Quality of Life Research. In: V.Moller , D. Huschka , & A.C. Michalos (Eds.) *Barometers of Quality of Life Around the Globe. How Are We Doing?*. Dodrecht, The Netherlands: Springer.
- Noll, H.H. (2013). Subjective Social Indicators: Benefits and Limitations for Policy Making-An Introduction to this Special Issue. *Social Indicators Research, 114*(1): 1-11.
- OECD (2013). *How's Life? Measuring Well-Being*, OECD Publishing.
- Olsson, C.A., McGee, R. Nada-Raja, S., & Williams, S.M. (2013). A 32-Year Longitudinal Study of Child and Adolescent. Pathways to Well-Being in Adulthood. *Journal of Happiness Studies, 14*, 1069–1083.
- Pearce, J., Jones, C., Morrison, S., Olf, M., van Buschbach, S., Witteveen, A B., Williams, R., Orengo-García, F., Ajduković, D., Aker, A. T., Nordanger, D., Lueger-Schuster, B., & Bisson, J. I. (2012). Using a Delphi process to develop an effective train-the-trainers program to train health and social care professionals throughout Europe. *Journal of Traumatic Stress, 25*(3), 337-343.
- Pollard, E. L., & Lee, P. D. (2003). Child Well-being: A Systematic Review of the Literature. *Social Indicators Research, 61*(1), 59-78.
- Proctor, C., Tweed, R., & Morris, D. (2015). The naturally emerging structure of well-being among young adults: "Big Two" or other framework?. *Journal of Happiness Studies, 16*(1), 257-275.
- Rees, G., Bradshaw, J., Goswami, H., & Keung, H. (2010). *Understanding Children's Well-Being: A National Survey of Young People's Well-Being*. London: The Children's Society.
- Renko, N., Butigan, R., Renko, S., Vuletić, A., Schaer, B., & Zaouche-Laniau, M. (2013). Harnessing expert opinion: Trends and challenges on the Balkan organic market, based on a Delphi approach. In D. Barjolle, M. Gorton, J. Milošević Đorđević, Ž. Stojanović (Eds.) *Food Consumer Science Theories, methods and application to the Western Balkans* (pp. 89-106). Dordrecht: Springer.
- Ryan, R. M., & Deci, E. L. (2001). On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being. *Annual Review of Psychology, 52*: 141-66.
- Shaw, C., Brady, L., & Davey, C. (2011). *Guidelines for research with children and young people*. London: National Children's Bureau
- Shek, D.T.L. (1998). A Longitudinal Study of the Relations Between Parent-Adolescent Conflict and Adolescent Psychological Well-Being. *The Journal of Genetic Psychology, 159*, 53-67

- Sičaja, M., Romić, D., & Prka, Ž. (2006). Medical students' clinical skills do not match their teachers' expectations: survey at Zagreb University School of Medicine, Croatia. *Croatian medical journal*, 47(1), 169-175.
- Starkweather, D.B., Gelwicks, L., & Newcomer, R. (1975). Delphi forecasting of health care organization. *Inquiry*, 12, 37-46.
- UNICEF Office of Research (2013). 'Child Well-being in Rich Countries: A comparative overview', Innocenti Report Card 11, UNICEF Office of Research, Florence.
- Visković, I. (2016). Possible applications of Delphi Method to pedagogic research. *Napredak: časopis za pedagoškijsku teoriju i praksu*, 157(1-2), 187-204.
- Vrcić Keglević, M., Kovačić, L., & Pavleković, G. (2014). Assessing primary care in Croatia: could it be moved forward?. *Collegium antropologicum*, 38(2), 3-9.