

# Mental Health Surveys on Community and Organizational Levels: Challenges, Issues, Conclusions and Possibilities

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**Abstract**—In addition to the fact that mental health bears great significance to a particular individual, it can also be regarded as an organizational, community and societal resource. Within the Szeged Health Promotion Research Group, we conducted mental health surveys on two levels: The inhabitants of a medium-sized Hungarian town and students of a Hungarian university with a relatively big headcount were requested to participate in surveys whose goals were to define local government priorities and organization-level health promotion programmes, respectively. To facilitate professional decision-making, we defined three, pragmatically relevant, groups of the target population: the mentally healthy, the vulnerable and the endangered. In order to determine which group a person actually belongs to, we designed a simple and quick measurement tool, which could even be utilised as a smoothing method, the Mental State Questionnaire validity of the above three categories was verified by analysis of variance against psychological quality of life variables. We demonstrate the pragmatic significance of our method via the analyses of the scores of our two mental health surveys. On town level, during our representative survey in Hódmezővásárhely (N=1839), we found that 38.7% of the participants was mentally healthy, 35.3% was vulnerable, while 16.3% was considered as endangered. We were able to identify groups that were in a dramatic state in terms of mental health. For example, such a group consisted of men aged 45 to 64 with only primary education qualification and the ratios of the mentally healthy, vulnerable and endangered were 4.5, 45.5 and 50%, respectively. It was also astonishing to see to what a little extent qualification prevailed as a protective factor in the case of women. Based on our data, the female group aged 18 to 44 with primary education—of whom 20.3% was mentally healthy, 42.4% vulnerable and 37.3% was endangered—as well as the female group aged 45 to 64 with university or college degree—of whom 25% was mentally healthy, 51.3 vulnerable and 23.8% endangered—are to be handled as priority intervention target groups in a similarly difficult position. On organizational level, our survey involving the students of the University of Szeged, N=1565, provided data to prepare a strategy of mental health promotion for a university with a headcount exceeding 20,000. When developing an organizational strategy, it was important to gather information to estimate the proportions of target groups in which mental health promotion methods; for example, life management skills development, detection, psychological consultancy, psychotherapy, would be applied. Our scores show that 46.8% of the student participants were mentally healthy, 42.1% were vulnerable and 11.1% were endangered. These data convey relevant information as to the allocation of organizational resources within a university with a considerable headcount. In conclusion, The Mental State Questionnaire, as a valid smoothing method, is adequate to describe a community in a plain and informative way in the terms of mental health. The application of

the method can promote the preparation, design and implementation of mental health promotion interventions.

**Keywords**—Health promotion, mental health promotion, mental state questionnaire, psychological well-being.

## I. INTRODUCTION

### A. Community Level Mental Health Promotion

**M**ENTAL health is not only a value important for a particular individual, but it is also an organizational, community and societal resource. Without achieving a high level of mental and subjective well-being of its citizens, the EU cannot be either a prosperous societal union or an economic zone. Accordingly, a low level of mental well-being is not only the source of individual problems, but it also brings up family, organizational, community and societal issues which need to be handled at both union and member state levels. Therefore, mental health and subjective well-being maintenance and their development are crucial areas of the EU's health policy [1].

The Szeged Health Promotion Research Group approaches the concept of health on multidisciplinary theoretical and methodological bases. In accordance with the paradigm shift in health sciences [2], [3], we regard health as a process which reflects not only the state of an individual's objective and subjective well-being, but it also shows how much the physical, psychological, intellectual, spiritual and social aspects of his/her personal development correspond to his/her own opportunities, goals and external life circumstances [4], [2], [5]. Based on this health concept, we define a broader sense of health promotion as a collective term including all the non-therapeutic contents and methods [2].

*Mental health promotion* is regarded as a special health promotion intervention which is to improve congruence in an individual's mental health from psychological, intellectual, spiritual and community perspective by influencing any lifestyle element on individual, organizational, and community level, using the full range of means in health promotion. Hence, our view is that mental health promotion does not only involve a risk factor-focused prevention of psychical disorders, but also a broader range of means which is applicable to promote healthy lifestyles (for more details, see [2]).

Despite the fact that studies related to subjective well-being are dynamically developing areas with several theoretical concepts and research methods [6], it is not easy to

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pragmatically accomplish an EU effort for health promotion.

As researchers of the Szeged Health Promotion Research Group [3], [7], [8], we were confronted with a challenge when we endeavored to gain empirical data to define local government priorities in health promotion. It was requested from us by the local government of a medium-sized Hungarian town, Hódmezővásárhely, with a population of approximately 45,000.

Mental health was not a declared goal to be accomplished as priority in the Healthy Cities WHO programme that Hódmezővásárhely participated in. Nevertheless, the decision-makers of the local government and the experts of Healthy Vásárhely Programme- in accordance with the European Pact for Mental Health and Well-being [1] wished to put more emphasis on surveying and improving the mental health of the inhabitants. However, we had to realise that the scores of the previous assessment surveys influenced by the paradigm in public health research were not detailed enough. Though, the Health Survey in Hódmezővásárhely [9] done in 2008 provided some data on the mental health of the inhabitants, these were mostly based on psychiatric means of measurements--for example, the General Health Questionnaire (GHQ-12) — and did not provide sufficient information for policy decisions based on the positive concept of mental health promotion. This was the moment when we, as researchers of the Szeged Health Promotion Workshop, realized that we would not be able to support any policy decisions by simply providing new data by a more detailed psychological and sociological survey on the population's mental health. Even any reconciliation with the representative data of the national psychological quality of life and well-being survey available to us would not lead to easily interpretable scores for the policy decision-makers. The latter needed a deeper insight into the mental characteristics of the population that allows them to empirically define the groups within the actual community to be targeted for mental health promotion and prevention. Another opportunity presented itself when we conducted a preliminary research for a Healthy University project in Szeged, launched for the students of the one of the biggest universities in Hungary. During this survey, we had the edge to greatly rely on the scores of the town research and our research method was applied to assess the necessary capacities for the planned student mental health promotion programmes.

### *B. Theoretical Background*

We applied the WHO approach to define the concept of mental health, the basis of our surveys. According to the WHO's definition, mental health does not only mean the lack of mental or psychical disorders, but also a state of subjective well-being in which each individual is able to recognize their inherent opportunities, cope with stressful situations in life, conduct a productive and fruitful job and actively participate in community life [10].

The theoretical concept and method applied in Hungarostudy surveys [11], constituted a relevant part of our mental health survey. The psychological quality of life

concept in Hungarostudy surveys, stemming from streamline-theories in Positive Psychology and mainly built on Martin Seligman, Mihaly Csikszentmihályi and Ed Diener's work, can also be reconciled with the WHO's mental health concept. Besides, this approach has significant empirical grounding as a result of the Hungarostudy that also surveyed the Hungarian mental health status [11].

Based on the research methods applied in Hungarostudy, we attempted to study the dimensions of psychological quality of life like a) subjective well-being, positive quality of life and the self-assessment of mental health; b) dullness, depression, negative emotional states; c) hopelessness; d) meaning of life, lack of positive emotions; e) fatigue caused by chronic stress; f) perceived subjective competence in sorting difficult problems; g) sense of coherence and coping with stress situations. The above dimensions can be regarded as defining elements of the psychological quality of life from both theoretical [11] and methodological [12] perspective.

Our experiences related to the policy preparation of mental health promotion interventions [13], [14] suggested that there were too many dimensions in the psychological quality of life concept. It would not have been simpler even in the case of other methodological approaches either. Approaches revealing risk-factors also require the simultaneous treatment of too many dimensions. It is, however, true that the critical periods of human life cycle, prenatal and early childhood vulnerability, family violence, low-level qualifications, poverty, chronic illnesses or handicaps, being a minority, high crime rates can all signal the degree to which the socio-economic environment and life situation of a given community can threaten the mental health of its members [15], [16]. On the other hand, the objective description of environmental effects does not reveal the degree to which the members of a given community were able to adapt to socio-economic difficulties and negative life situations. This was a drawback in the process of preparation for decision-making. On the one hand, it did not allow unambiguous and transparent deductions. On the other hand, we only found examples for the interpretation of individual psychological quality of life variables, but not for an approach that comprehensively assessed the whole profile. Therefore, we found it necessary to develop an approach that divides the target population into unambiguous, empirically well-defined groups that can be regarded as remarkably distinct as to intervention requirements.

The starting point in our research was the fact that the mental health of an individual is greatly influenced by to what extent he/she experiences disorders or symptoms when adapting to everyday challenges (see Generalized Adaptation Syndrome [17], and Transactional Model of Stress [18]). Therefore, our research group, based on its experiences related to health promotion and psychotherapy, attempted to empirically define and verify three categories of mental health [19].

The mentally healthy group involve individuals who possess appropriate self-power and self-esteem. They have enough resources to fulfil their everyday tasks and

responsibilities. If they get into a strongly stress-inducing life situation—that comes with an infliction of emotional distress and conflict in social affairs—, they are able to react in a structured way and actively cope with the challenges. Furthermore, they are able to control emotional distresses, tensions triggered by stress situations. Even if they have adaptation problems, these are relatively infrequent and transitory in nature.

The vulnerable group includes individuals that give less active responses to stress situations and mostly avoid problems, difficulties. It is often typical of them to underestimate themselves or their environment and they are confronted with self-esteem problems. Explicit adaptation disorders can be noticed in the form of a few strong complaints or a series of minor difficulties that has a significant effect on the whole. Therefore, they need to change in order to face issues and effectively cope with everyday stress situations, which usually entail the reallocation of their available resources.

The endangered group comprises individuals who are disabled even by everyday stress situations, emotional distress, social conflicts or affair problems. They are unable to make decisions that entail considerable emotional stress and their available resources are insufficient to cope with the everyday challenges. Severe adaptation disorders manifest in frequent and harsh symptoms. The endangered need external help in learning new coping skills and conflict-handling techniques as well as additional support when they are supposed to apply their newly acquired skills in practice.

All the three groups require distinct goal settings in mental health promotion and methods to be applied for the sake of effective intervention. Therefore, the identification of these three groups and their empirical analysis are important steps when preparing interventions for community level health promotion [19].

### *C. Methodological Background*

Based on the above mentioned policy reasons, our research team, in order to prepare health promotion interventions, distributed the participants of the Hódmezővásárhely sample among the above mentioned three groups.

To identify the groups of mentally healthy, vulnerable and endangered, a new measurement tool, the Mental State Questionnaire (MSQ), was developed based on already applied symptom and complaint lists such as Hamilton Anxiety Rating Scale [20], [22], Beck Anxiety Inventory [21], [22] and ELEF-2009 (European Health Survey – Hungary) [23]. The development of the new measurement tool was necessary as we were unaware of any detailed list published in the literature that would involve both physical and psychical complaints. Per question items, the respondents could select one option out of the following three: never, rarely and often. The categorization of the respondents was accomplished by a simple procedure based on the frequency of complaints [19].

The above groups of mental health were validated with the aid of the following measurement tools of psychological quality of life, standardized on a Hungarian sample during the

Hungarostudy research.

The WHO's Well-Being Index is suitable for the self-assessment of mental health, primarily focusing on the indicators of subjective psychological well-being and positive quality of life [24]-[26]. In order to make it reconcilable with the data of national representative surveys, we transformed the originally 6-point WHO Index in a way that we could publish our data in accordance with a 4-point scale (its mean in the Hungarian sample<sup>1</sup> is  $9.63 \pm 3.35$ , see the method in [27]).

The shortened, 9-itemed, version of the Beck Depression Inventory [28], [29] was designed based on components characteristic to depressive symptoms. The BDI is an adequate measurement tool to grab the indicators of social withdrawal, indecisiveness, sleeping disorder, fatigue, bodily symptoms-related anxiety, incapacity, pessimism, anhedonia and self-accusation [28], [29]. Based on the Hungarian representative sample, its mean was  $7.68 \pm 11.19$ . (See method in [27]).

With the statement of 'I am usually bored', we measured the lack of basic positive emotions in terms of psychological quality of life. The appearance of boredom can be a good indicator of diminished vitality and weakened goal-oriented behavior [12]. The mean of the scale in the latest national representative survey was  $1.44 \pm 0.74$  (see method in [27]).

The General Self-Efficacy Scale [30], [31] serves to measure how competent we feel ourselves to solve difficult tasks. When we fail in doing something, our confidence, the sense of competent situation handling, is reduced as result, which can be the source of severe frustrations [12]. The national mean of the four-point scale with four statement items is  $8.99 \pm 2.48$  (see method in [27]).

The Life Meaning subscale is a part of the Brief Stress and Coping Inventory (BSCI-LM) [32], [33]. The BSCI makes it possible to comprehensively study everyday stress factors and coping skills, while the LM subscale is conceptualized as one of the coping skills. The national mean of the three-point scale with seven statement items was  $9.25 \pm 2.79$  (See method in [27]).

Our hypothesis—, which states that, as to the indicators of psychological well-being, significant differences can be demonstrated among the groups of the mentally healthy, vulnerable and endangered—was verified<sup>2</sup> with the following scores [19]. In accordance with our hypothesis, the mean scores of the scales with a positive domain— such as WHO's Well-Being Index, General Self-Efficacy Scale and Life Meaning subscale—were monotonically decreasing, while those of the scales with a negative domain—that is, the Beck Depression Inventory, the General Feeling of Boredom — were monotonically increasing in the categorical distribution of mental health.

The precondition of the one-way ANOVA, which is the acceptance of the null hypothesis in Levene's test for homogeneity of variance, was met for two measuring tools (WHO Well-Being Index ( $p=0.075$ ); BSCI-LM-subscale ( $p=0.908$ )). Taking the statistical robustness of the ANOVA

<sup>1</sup> The data is permitted to be published here by the lead scientist of The Hungarostudy 2013 Research Group.

<sup>2</sup> See more details on the way the research was conducted in Chapter II A.

procedure into account, the score of the one-way ANOVA can be interpreted even in the case of these variables. The one-way ANOVA probe showed significant differences ( $p < 0.001$ ) among the mean scores of all the three groups for all the

indicators. Post hoc analyses for pairwise comparisons among means of risk groups also demonstrated significant difference in each and every case.

TABLE I  
MEAN AND SD SCORES FOR PWB INDICATORS IN A CATEGORICAL DISTRIBUTION OF MENTAL HEALTH (N=1839)

	Mental Health Categories								
	Mentally Healthy Group			Vulnerable Group			Endangered Group		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
WHO Well-Being Index	694	8,36	2,64	637	6,64	2,76	291	4,23	2,6
Beck Depression Inventory	698	3,88	4,94	636	10,07	8,16	287	23,69	12,29
General Feeling of Boredom	710	1,19	0,47	650	1,33	0,61	298	1,51	0,81
General Self-Efficacy Scale	702	9,2	2,76	647	8,04	2,83	292	6,41	3,25
Life Meaning (BSCI – LM)	675	9,06	2,53	630	8,22	2,63	283	7,27	2,55

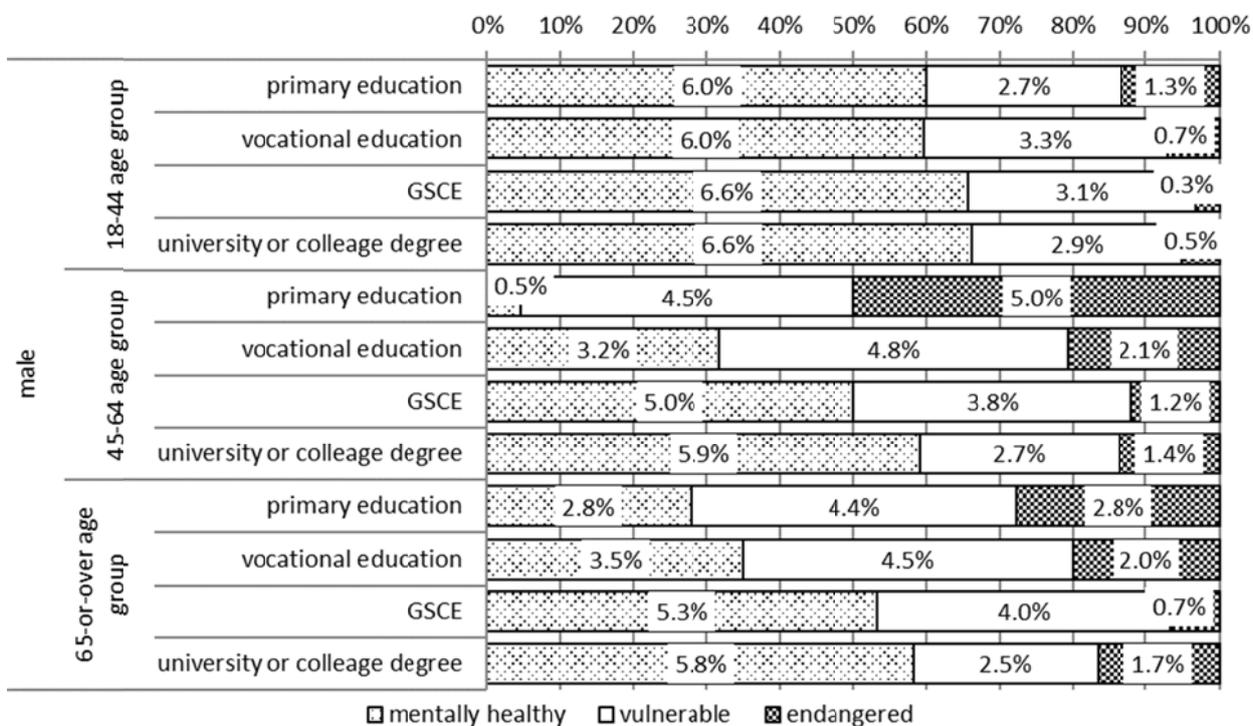


Fig. 1 Mental health group distribution for men considering their age and qualifications

Consequently, in accordance with our hypothesis, significant differences among the psychological quality of life indicators could be identified based on the categories applied in the study—that is, mentally healthy, vulnerable and endangered. Consistently, these differences reflect less favorable discrepancies among the groups in the function of increased vulnerability. So, the mental health categories based on the Mental State Questionnaire proved to be suitable for mapping tendencies in the psychological quality of life indicators.

## II. MENTAL HEALTH ANALYSIS MADE ON THE POPULATION OF A MEDIUM-SIZED HUNGARIAN TOWN, HÓDMEZŐVÁSÁRHELY

### A. Conduct of Research and Sample Characteristics

Two institutions in Hódmezővásárhely participated in the research conducted between April and October 2011:

Zsigmond Kalmár Vocational and Secondary School, Member Institution of Hódmezővásárhely Integrated Vocational Education Centre and the Elisabeth Hospital. (Hereafter, they will be referred to as School and Hospital, respectively.) The decision-makers in the local government considered these two institutions as representative to the socio-demographic composition of the town. The primary framework for research comprised all the hospital labourers-skilled, administrative and associate workers-, patients, visitors, patients' relatives, all the school workers—both teaching and non-teaching staffs--, parents and adult learners.

When developing the sample, we attempted to map the whole socio-demographic picture of the Hódmezővásárhely population, considering that the educational qualifications of both the health and educational workers was either secondary or tertiary, while there was a signification ratio of the clientele

and clientele-related participants—relatives, visitors, parents, adult learners—who only possessed primary qualifications.

We queried all the Hospital and School workers, while we only took random samples from students, walking and non-walking patients, and visitors. The sample framework was later extended by random samples taken from the clientele of the Hódmezővásárhely Town Hall. With the aid of interviewers, there were 2,377 questionnaires filled out and received by the research team. Out of these, 32 questionnaires were excluded as they were filled out by under-aged, 493 tests were disregarded as these were done by respondents who are not living in Hódmezővásárhely. 13 questionnaires were considered as un-assessable. Data from 1,893 capita was left to be worked with.

35% of the participants were male and 65% were female. The participants' age ranged from 18 to 94, the mean age was  $42.56 \pm 15.40$ . Based on the age-categorisation applied in Hungarostudy, 57.5% of sample participants belonged to the 18 to 44 age group, 31.2% to the 45 to 64 and 10% to the 65 or over age groups at a 1.3% non-response rate. The sample was distributed based on highest qualification in the following way: people with no qualification (2.1%), those with primary education (13.4%), those with vocational education (26.5%), people with GSCE (38.3%) and tertiary qualification (19.2%) at a 0.5% non-response rate. 58.9% of the participants was wage earners, 40.4% was either unemployed or living on other sources of income (for example, pensions, maternity benefits, other benefits etc.). 0.7% did not respond to income-related questions.

Data gathered via questionnaires were processed and analyzed by using SPSS 22 program suite (SPSS Inc., Chicago, Illinois, USA).

#### *B. Socio-Demographic Risk Group Analysis*

The participants were categorised in the following way: mentally healthy (35.3%), vulnerable (35.3%) and endangered (16.3%). We were unable to categorize 9.6% of the participants as their questionnaire was not filled out completely. In gender distribution, as to males, 53.7% was mentally healthy, 34.8% vulnerable and 11.6% endangered. As for females, only 37.0% turned out to be mentally healthy, 41.4% mentally vulnerable, while 21.6% was considered as mentally endangered.

In age distribution, the half of the 18 to 44 age group (49.7%) and third of each of the 45 to 64, and 65-or-over age groups (31.8 and 31.6%) were found mentally healthy. Roughly a third of the 18 to 44 age group (37%) and almost half of each of the 45 to 64, and 65-or-over age groups (42.7% and 42.6%) were considered as mentally vulnerable. More than the tenth of the 18 to 44 age group (13.3%) and a quarter of each of the age groups over 45 (25.5 and 25.8%) were regarded as endangered.

The above data is significantly affected when their analysis is done via a simultaneous consideration of all the three socio-demographic aspects (Fig. 1).

Similarly, to the data shown in the full sample, scores tend to deteriorate in the function of age, which higher

qualifications are more or less able to offset. The scores are more dramatic for males aged 45 to 64, with primary qualifications. In this segment, only 4.5% is mentally healthy, 45.5% vulnerable and 50.0% is endangered. However, it can be stated that the offsetting influence of higher qualifications did not prevail in the case of women (Fig. 2).

The ratio of the mentally healthy women aged 45 to 64 with university or college degree was 25%, which was an outstandingly low value, compared to women of the same age group with lower qualifications (This ratio was 59.1% for males of the same age group with tertiary qualifications). Half of the women aged 45 to 64 with university or college degree (51.3%) was mentally vulnerable, while a quarter of them (23.8%) was endangered. In comparison, as to women of the same age group with GSCE, the ratios of the mentally healthy, vulnerable and endangered were 35.6, 47.5 and 16.8%, respectively.

Though, it is in alignment with the tendencies observed for the whole population, the situation of women aged 18 to 44 with primary education deserves a particular attention. It is startling that that their scores basically are the same as those of women aged 65 or over with primary education. So, women aged 18 to 44 with primary education appeared to have the following ratios: 20.3% was mentally healthy, 42.2% was mentally vulnerable and 37.3% was endangered.

### III. MENTAL HEALTH CATEGORY ANALYSIS MADE ON UNIVERSITY STUDENTS

Once it was verified, as it was depicted above, that the Mental State Questionnaire was suitable for a quick, orienting survey of a community's mental health, we chose the students of the University of Szeged as the next target group to apply the measurement tool for.

Our aim was to gather information for individual and organizational level interventions by using the Mental State Questionnaire and getting a comprehensive insight into the students' mental health state.

#### *A. Description of the Research Conducted Among University Students and Sample Characteristics*

The research tool was an assisted structured questionnaire interview administered by well-prepared interviewers<sup>3</sup>. The sample consisted of the students studying at the University of Szeged. The University of Szeged is the biggest service-provider in the Southern-Great Plains Region of Hungary. It has 12 faculties and more than 20 000 students study here at the moment. 1618 students were involved in the research, among which 1565 students provided valid answers for the categories of mental health categories. 464 students (29.1%) were from the county where the university is located and 1129 students (70.9%) came from all over Hungary. Evaluable amount of responses came from the Faculty of Medicine (37%), Faculty of Health Sciences and Social Studies (25.9%), Juhász Gyula Faculty of Education (20.6%), the Faculty of

<sup>3</sup> The research was conducted within the framework of grant TÁMOP-6.1.5-14-2015-0004 – One step towards our health – The complex health promotion programme of County Csongrád.

Science and Informatics (13.4%) and the Faculty of Dentistry (1.9%). The rest of the students came from the Faculty of Arts (0.3%), Faculty of Economics (0.2%), Faculty of Pharmacy

(0.2%), Faculty of Law and Political Sciences (0.2%), and the Faculty of Music (0.1%).

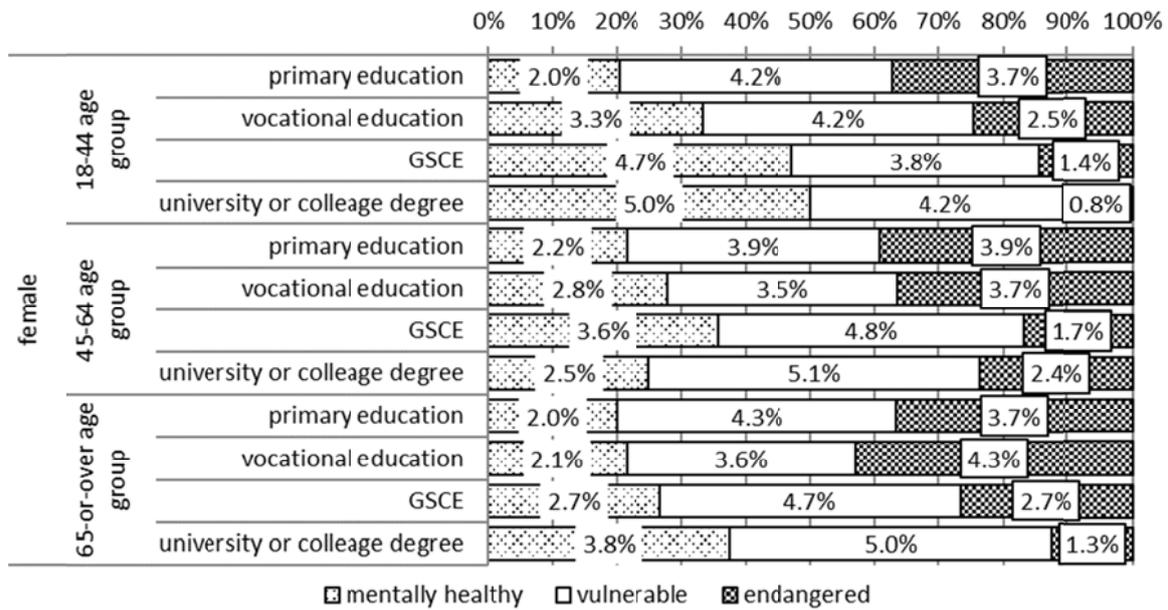


Fig. 2 Mental health group distribution for women considering their age and qualifications

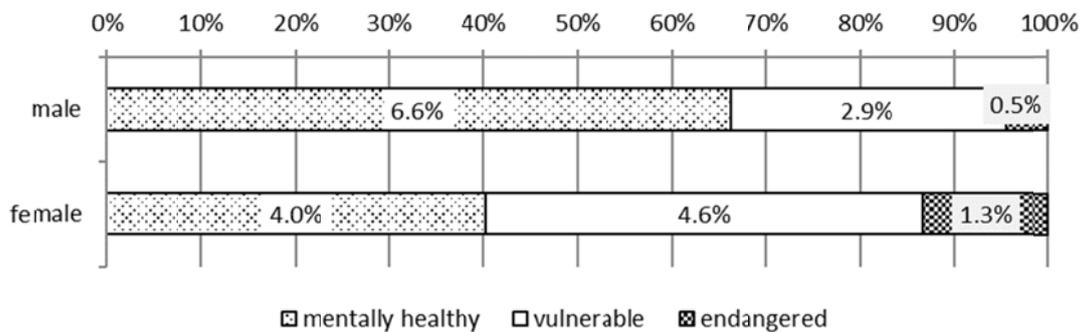


Fig. 3 Mental health status of the student sample (N=1553) by genders

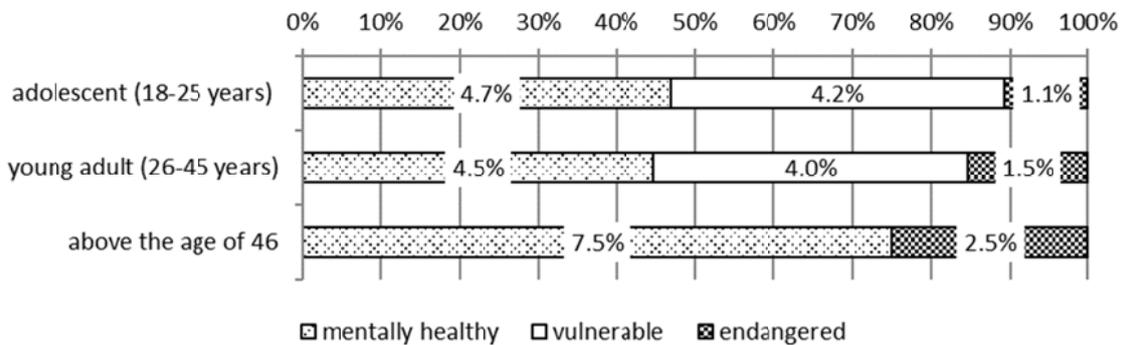


Fig. 4 Mental health status of the student sample (N=1557) by age groups

25.5% of respondents were male and 74.5% were female. We have created age-groups according to psychological categories. 94.3% were adolescent (18 – 25 years old), 5.5% were between 26 and 45 (young adult), 2.0% were between 46 and 65 years (age of upkeep). None of the respondents were

above 66 years, which is the age of decline.

#### B. Student-Related Mental Health Category Analysis

During data analysis, we received the following student distribution among the three defined categories of mental

health state: the mentally healthy, vulnerable and endangered students constitute 46.8, 42.1 and 11.1%, respectively. We also viewed the categories from socio-demographic perspectives. Fig. 3 illustrates the category distribution by gender. It shows that 66.20% of the male participants were found mentally healthy, while this was only true for 40.20% of the female participants. The vulnerable group forms 29.20% of the male respondents, while 4.60% of them belong to the endangered group. In parallel to these scores, the corresponding ratios of the female distribution between the two groups were 46.40 and 13.30%. It can be claimed that the scores of the female participants are remarkably worse than those related to the male respondents.

Age-group distinctions are illustrated on Fig. 4. When defining the age-groups, we relied on the classification applied in the Hungarostudy researches [12] as it was mentioned earlier. It can be seen that almost half of both the adolescent group, 18 to 25, and the young adult group, 26 to 45—, that is; 46.90 and 44.70%—belongs to the mentally healthy category. As to the vulnerable and the endangered categories, the distribution ratios of these two age groups were 42.40 and 40.00% as well as 10.8 and 15.30%, respectively. There were only four respondents aged over 46, therefore, no statistical statement can be made. To sum up, from the younger to the older age group, the proportion of the mentally healthy gets smaller, while those of the mentally vulnerable and endangered get bigger.

#### IV. CONCLUSION

The scores of the Hódmezővásárhely Mental Health Survey underpin that the Mental Health Questionnaire, MHQ, is suitable for the cost-effective distinction of people who are mentally healthy, vulnerable or endangered. It supports a quick, orienting survey on the mental health of a community, establishing a ground for a simple prevention protocol for mental health. The measuring tool is not to replace any psychodiagnostic tools or procedures designed for the sophisticated disclosure of chronic mental processes.

The discussed mental health promotion states require distinguished methods. The detection and diagnosis of psychopathological processes behind the state of being mentally endangered need to be sorted by professional experts. We stress the importance of identifying the vulnerable group within a community as the community level preventive methods in health promotion can be most effectively applied in the case of this particular mental health category. It is likely that social support, community support for expanding coping skill repertoire, exposure to anxiety-easing social situations can all help overcoming difficult life situations and developing individual coping skills. For the mentally healthy group, it might be adequate to utilize methods that contribute to the preservation and promotion of individual resources as well as the achievement of internal harmony.

For our research team, the true value of the mental health state categorization is that it can allow experts and policy makers to more effectively allocate material and human resources for mental health promotion. It can help defining

capacity requirements for professional care, prevention and community health promotion. The socio-demographic analysis of mentally vulnerable or endangered people can serve as a guide in identifying the potential target groups of town, community or workplace actions and tasks.

#### APPENDIX

##### A. Mental State Questionnaire

Please read and consider the list carefully. In each row, circle the correct option as to how frequently you experienced the given symptom this year. Please, do not skip any line.<sup>4</sup>

TABLE II  
MENTAL STATE QUESTIONNAIRE

	Never	Rarely	Often
1. Sleeping problems	0	1	2
2. Persistent headache	0	1	2
3. Fast or irregular heartbeats	0	1	2
4. Pressure over heart, thoracic pain	0	1	2
5. Fear, anxiety without any obvious reason	0	1	2
6. Mood swings, mainly dejectedness	0	1	2
7. Weight loss	0	1	2
8. Weight gain	0	1	2
9. Persistent nausea/diarrhea, constipation	0	1	2
10. Stomach pain (negative medical result)	0	1	2
11. Dizziness, fainting	0	1	2
12. Decreasing in sexual desire	0	1	2
13. Persistent impatience for 1 or 2 weeks	0	1	2
14. Decreased capacity for work (min.1 or 2 weeks)	0	1	2
15. Fatigue, exhaustion without any obvious reason	0	1	2

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<sup>4</sup> The evaluation of the tool utilized for participant categorization can be requested from the correspondent author, free of charge.

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