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Article

Health Psychology Services for People in Disadvantaged Regions of Hungary: Experiences from the Primary Care Development Model Program

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Abstract: Background: The importance of community health psychology in providing complex bio-psycho-social care is well-documented. We present a mixed-method study monitoring the efficacy of health psychology services in the Public Health Focused Model Program for Primary Care Development (2012-2017) in four disadvantaged micro-regions in North-East Hungary. Methods: Study 1 assessed the availability of the services using a sample of 17003 respondents. Study 2 applied a follow-up design to measure the efficacy of the health psychology services in a sample of 132 clients. In Study 3, we conducted focus group interviews to assess clients' lived experiences. Results: More mental health issues and higher education predicted a higher probability of service use. Follow-up showed that individual and group-based psychological interventions resulted in lower depression and (marginally) higher well-being. Thematic analysis of the focus group interviews indicated that participants deemed topics like psychoeducation, a greater acceptance of psychological support, and heightened awareness of individual and community support important. Conclusions: The results of the monitoring studies demonstrate the important role health psychology services can play in primary health care in disadvantaged regions. Community health psychology can improve well-being, reduce inequality, support the population's health awareness, and address unmet social needs in disadvantaged regions in Hungary.

Keywords: community health psychology; primary care; disadvantaged populations; well-being; integrated care

1. Introduction

Countries with a strong primary care system tend to have better health status, lower hospital admissions, and reduced socioeconomic health inequalities in the population [1–4]. This worldwide trend +parallels with the development and expansion of the scope of primary care activities oriented towards a preventive approach in health promotion. Prevention can be achieved by transposing certain specialist medical services into primary care and connecting primary care with community services. This shift may involve patients in treatment and health management [5] decreasing health inequality. The present paper presents the Primary Health Care Development Model Program introduced in the most disadvantaged regions of Hungary. The community health-focused program aimed to improve the health of the disadvantaged population by providing new preventive services within the primary care setting. Beyond the involvement of dietitians, physiotherapists, and public

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health professionals, the program employed community health psychologists. The present report focuses on the experiences with the implemented community health psychology service.

1.1. The Primary Health Care Development Model in Hungary

Health systems worldwide face several challenges due to the changing demographic, socio-cultural, and natural/technological environment, and Hungary is no exception. In international comparison, Hungary is amongst the countries with less favorable indicators in lifestyle-related risk factors, chronic non-communicable diseases, and deaths in Europe. Meanwhile, the emigration of health professionals and the medical society's aging threaten the health system's sustainability[6–8]. In addition, the perception of psychological problems prevalent in Hungarian society is also deficient, and the awareness of the importance of prevention and the dangers of unhealthy behaviors is not part of the general mentality [9]. It would be important for health professionals to be more knowledgeable about the psychosocial aspects of illness and how they could help people reduce these risks. Among many healthcare workers, there is a lack of information about the factors influencing mental and physical health and about the necessary organizational background for effective health equity promotion.

With all these challenges in mind, an innovative pilot Primary Health Care Development Model was implemented in the most disadvantaged regions of Hungary, in settlements with populations living in extreme poverty. The model program was implemented in the framework of the Swiss-Hungarian contribution program between 2013 and 2017 [10]. The Primary Care Development Model Program was a community health-focused program aiming to contribute to the improvement of the population's health by providing primary patient care and placing particular emphasis on disease prevention programs, screenings, counseling, and health promotion services [11,12]. Four functionally enhanced and reorganized primary care centers, so-called GPs Clusters were set up. The four GPs Clusters offered new services to the local population with particular attention to the Roma minority. These services included health status surveys, lifestyle counseling, physiotherapy, preventive services, dietetic and health psychology counseling, and community health promotion programs. The services involved dieticians, physiotherapists, psychologists, public health professionals, and so-called Roma "health mediators." One of the essential service areas of the program was the employment of community health psychologists [12,13].

1.2. Community health psychologists' contribution to primary care

Strengthening the community function of primary care, that is, the promotion of the integration of patients into society contributes to the effectiveness of care. This change is conducive to integrating mental health, home, and social care and creates an opportunity to include professions in primary care that are traditionally not part of that care, such as psychologists, physiotherapists, and dietitians. Moreover, in most countries, mental health problems are a significant part of the workload of primary care professional groups. Available evidence demonstrates that patients supported by mental health professionals recovered sooner and that this stable condition was more sustainable than if a GP had treated the patient's mental problem. At the same time, the number of GP consultations also showed a significant decrease across mental health practitioners working in practices [14]. Therefore, Gunn and Blount proposed a model where psychologists should collaborate with the primary care medical team [15]. This integrated, coordinated model allows psychologists to care for and treat patients who would otherwise have difficulty or no access to a specialist, including the elderly, those with somatic complaints, and chronic patients. The essence of the integrated model is the continuous consultation and communication with doctors in interprofessional teams [15].

Similarly, Haas and Degruy argued why primary care needs psychologists. They found that primary care patients have significant psychological needs and classified them into three general categories: first, psychopathology and mental disorders; second, stress-related symptoms and problems with chronic illnesses or behavioral health problems; and third, vulnerable groups (e.g., the victims of abuse, the socially or economically isolated). Patients in primary care settings (especially those with mental health problems) are likely to be older, less educated, poorer, and members of a

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minority group [16]. Thielke and his colleagues added challenges that needed addressing in this field, especially in terms of the definition of the competence of health psychology in primary care and clarification of the role of health psychology in integrated care [17].

In sum, community health psychologists are united by a commitment to exposing and challenging harmful social inequalities, working on a broad definition of health as a state of mental, physical, and social well-being [18,19]. Community health psychology was demarcated as "a body of theory and practice that focuses on the processes of collective action through which communities collectively identify the impacts of oppressive social relations on their wellbeing and engage in social struggles to create more health-enabling social environments" [20]. This definition indicated the 'coming of age' of community health psychology, demonstrating its confident and productive expansion beyond its roots of small-scale collective action in local settings.

1.3. The present research

The main aim of the present research is to examine the characteristics and effectiveness of the health psychology services of the Primary Care Development Model Program in Hungary. The Model Program introduced a new primary care model to four disadvantaged regions of Hungary, integrating community health psychologists into the GPs Clusters. According to the Operations Manual of the Practice Teams [21], the roles of a health psychologist are 1) to provide individual and group therapy sessions; 2) to provide tailor-made lifestyle counseling in areas such as stress management, weight loss programs, and quitting smoking; 3) to participate in the rehabilitation of patients with somatic diseases, and 4) to participate in prevention and screening programs.

We wanted to explore the following research questions concerning the health psychology services in the GPs Clusters. First, what are the characteristics of the clients who had access to the psychological service compared to the general population of the model program's regions (Study 1)? This question can shed light on the contribution of health psychology services to a more equitable healthcare access in disadvantaged subpopulations. Second, how effective was the service in terms of indicators of mental health (Study 2)? This question is important because one of the main avenues to empower people in need is to increase their mental health [20]. Therefore, we assumed that participants' mental health and well-being would significantly improve during the services. Third, more qualitatively, we wanted to know the participants' subjective experiences and opinions about the services (Study 3). Personal experiences provide valuable feedback for the program to function sustainably and give voice to a vulnerable and otherwise unheard population. We present these surveys as three interconnected studies, each containing a detailed overview, a description of the methods and results, and a brief discussion. We summarize the findings in a general discussion.

2. Study 1

2.1. Overview

The Primary Care Development Model Program introduced a new community-based screening procedure, the Health Status Assessment (HSA) [22]. The HSA aimed to facilitate the in-time recognition of exposure to avoidable (e.g., lifestyle-related) risk factors and early-stage disorders through screening. The HSA database also made it possible to explore which people were more likely to receive psychological care by comparing the characteristics of the health psychological service participants (see Study 2 for a detailed description) to the general population as represented by the HSA data. In line with this, the aim of Study 1 is to explore the characteristics of those participants who had access to psychological care in these disadvantaged regions of Hungary. Since the information on health psychology services was available across the GP clusters, provided personally by GPs and health mediators, and the application was made voluntarily, participation in the survey might have been influenced by the frequency of patients' visits to their GPs' surgeries. The participants' physical and mental help-seeking attitudes and behaviors are likely to be affected by gender, ethnicity, age, level of education, and general health status (as empirically substantiated

multiple times). Based on all this, we also assume that these variables can predict participation in health psychological care [23–25].

2.2. Methods

Participants and procedure

The HSA was coordinated by the screening teams of the GP clusters (including the community nurses, the public health specialists, and the GPs). The screening procedure was carried out by health mediators whose task was to connect healthcare providers with the local community, focusing on adults with a disadvantageous socio-economic status [26]. During the total monitoring period (from November 2013 to March 2016), 22.652 adults took part in HSA out of the total number of adults registered in the GP clusters, which translates into a 70% participation rate. From the whole HSA sample, 17.003 adults (7.4% Roma minority) had complete response sets, 107 of whom (0,6%) also participated in the intervention effectiveness study and received health psychological service (2.8% Roma minority) (see Study 2). By connecting data from the HSA assessment (demographic and mental health data) and the effectiveness study (Study 2 participant or not), we could estimate the predictors of receiving access to health psychology services. Therefore, we identified the characteristics available in the HSA and considered them relevant to treatment entry.

Materials

We used the following variables of the HSA measurement tools as predictors, in their original form or as recoded variables. Gender (male/female); age (18-24 / 25-44 / 45-64 / 65-), education (categories: maximum eight years of primary school / secondary without graduation / secondary with graduation / higher education); subjective financial situation (very bad, bad, optimal, good, excellent); Roma identity (no/yes); BMI (no overweight, overweight or obese). The HSA measurement included systolic blood pressure (normal/high), diastolic blood pressure (normal/high), and information on smoking status (not smoking, smoking).

Mental health status was measured by the Beck Depression Inventory - Short version (BDI-S) [27], a commonly used, nine-item questionnaire to assess depressive symptomatology in community-based surveys, and the General Health Questionnaire 12 (GHQ-12) [28], a self-administered questionnaire for screening psychiatric symptoms in the general population. BDI-S items present the physical, cognitive, and emotional symptoms of depression with response options ranging from 0 = not at all to 3 = most of the time (summarized scores 0–9: normal / 10–18: mild depression, 19–24: moderate depression / 25–: severe depression). GHQ-12 items' response options range from 0 = not at all to 3 = most of the time (0-4: normal / 5-: high).

Subjective health status was measured with the one-item self-rated health (SRH) estimate (very bad, bad, optimal, good, excellent). Health locus of control was measured with the question: How much can you do for your health? (very much / much / little / nothing).

Statistical procedures

We ran a multivariate binary logistic regression analysis to assess the probability of receiving health psychological service. The outcome measure was inclusion (vs. non-inclusion) in the intervention effectiveness study, and predictors were the characteristics assessed in the HSA. The alpha level for significance testing was set to p = 0,05 for the subsequent analyses.

2.3. Results

The model explained 12.0% of the variance (Nagelkerke's R^2; Chi square (df=37) = 157.99, p <.001). Among the sociodemographic variables, education was the most important predictor of participation in the intervention effectiveness study. Compared to those with a maximum of 8 years of primary school education, those with a secondary school without graduation were more than four times, those who graduated more than six times, and those with higher education more than eight times more likely to participate in the monitoring survey. The other significant predictive sociodemographic variable was gender: women were three times more likely to participate in the monitoring survey. Finally, among the health and psychological characteristics, the BDI-S score and

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the GHQ12 score were significant predictors: having a higher BDI-S score (moderate or severe depression), and a higher GHQ12 score (depression, anxiety, social dysfunction, self-esteem) predicted the person's involvement in the intervention effectiveness study. The results are shown in Table 1.

Table 1. Predictors of receiving health psychological service in the model program.

				95% C.I. to the OR	
	B	p	OR	Lower	Upper
Gender: female (reference: male)	1.104	<.001	3.015***	1.823	4.987
Age (years; reference: 18-24)		.182			
25-44	.337	.403	1.401	0.636	3.086
45-64	.008	.985	1.008	0.440	2.310
65-	-.388	.425	0.679	0.262	1.759
Education (reference: maximum 8 years of primary school)		<.001			
Secondary without graduation	1.467	<.001	4.337***	2.023	9.299
Secondary with graduation	1.892	<.001	6.632***	3.252	13.523
Higher education	2.101	<.001	8.172***	3.655	18.272
Perceived/subjective financial situation (reference: bad / very bad)		.450			
Optimal	.339	.207	1.403	0.829	2.375
Good / Excellent	0.306	.413	1.358	0.652	2.829
Roma identity: yes (reference: no)	-1.223	.231	0.294	0.040	2.177
BMI (reference: no overweight)		.701			
Overweight	-0.200	.433	0.819	0.497	1.349
Obese	-0.033	.894	0.967	0.594	1.574
SRH (reference: bad / very bad)		.014			
Optimal	0.264	.380	1.301	0.723	2.343
Good / Excellent	-0.493	.192	0.611	0.292	1.280
How much can you do for your health? (reference: I can do very much)		.146			
I can do much	-0.566	.049	0.568	0.323	0.998
I can do little	-0.658	.083	0.518	0.246	1.089
There's nothing I can do	-1.686	.112	0.185	0.023	1.482
Systolic blood pressure: high (reference: normal)	0.429	.085	1.536	0.943	2.502
Diastolic blood pressure: high (reference: normal)	-0.017	.950	0.983	0.581	1.663
Smoking (reference: not smoking)	-0.298	.208	0.743	0.467	1.180
BDI-S (reference: 0–9: normal)		.002			
Mild depression (10-18)	0.257	.384	1.293	0.725	2.305
Moderate depression (19-24)	1.203	.001	3.329**	1.660	6.678
Severe depression (25-)	1.307	.002	3.694**	1.618	8.430
GHQ12: high (5-) (reference: 0-4: normal)	0.773	.015	2.167*	1.165	4.029
Constant	-7.321	<.001	0.001		

Notes: SRH = Self-Rated Health; BDI-S = Beck Depression Inventory – Short version; GHQ12 = General Health Questionnaire 12.

2.4. Short discussion

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These results show that a low level of mental health (e.g., depression, anxiety) indicated a propensity for willingness to receive psychological care. There was a tendency for psychological care to be sought primarily by those whose health condition warranted it. Besides this, some of our findings supported the results of previous studies, namely that specific sociodemographic characteristics are significant predictors of receiving psychological services like gender and higher social status [23–25]. However, other characteristics like age or ethnic background (Roma identity) were not significant predictors, indicating balanced access to the services. Being female and having a higher educational background contributed to a higher probability of access to the service. Consequently, the results confirm that other social groups, like males and participants with a lower level of education, need more support in finding their way to the available services [29,30].

3. Study 2

3.1. Overview

Integrated models of primary healthcare that include health psychology services are cost-effective and support the physical and mental health of patients of all ages [31–37]. During the last year of the Model Program, we implemented a follow-up assessment using a questionnaire to examine the effectiveness of the health psychology services of the Model Program. We assumed an increase in well-being and a decrease in depression among recipients of psychological care.

3.2. Methods

Participants and procedure

With the help of the health psychologists, we recruited volunteer participants from the patients who received health psychology services individually or in groups during the assessment period. The first assessment was recorded for each participant before starting the actual health psychological service (T1). This assessment, which constituted a separate phase from the HSA, provided the baseline values for the effectiveness study. Participants were also assessed at the end of the service (T2), which provided an opportunity to estimate the extent of mental health change during the program compared to the baseline values. The average time between the two assessments was about 120 days.

Regarding our sample, for the first time (T1), 156 participants completed the questionnaire, while at the second measurement point (T2), 137 of them completed the follow-up questionnaire (dropout rate: 12.2%). Of the 156 T1 participants, 107 had previously also participated in the HSA study, as described in Study 1. However, HAS variables and data were not analyzed in this study. The basic characteristics of the sample are shown in Table 2.

Table 2. Descriptive characteristics of the follow-up sample.

	Full sample	
	T1	T2
N	156	137
Male	23	22
Female	133	115
Age	47.5(15.9)	47.8 (16.0)
Individual	81	67
Group	75	70
T2 – T1 (day)	119.4(79.8)	

Notes: missing values are not shown.

Materials

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The effectiveness study's baseline and follow-up questionnaires were separate, abbreviated, and, in certain aspects, extended variants of the HSA assessment tool. Both the baseline (T1) and the follow-up (T2) questionnaire package included the following instruments: Beck Depression Inventory - Short version (BDI-S) (see in Study 1) [27]; the WHO Well-Being Index (WHO-WBI) [38], a five-item questionnaire to assess the experience of positive emotional states, with response options ranging from 1 = not at all true to 5 = completely true. The questionnaire also included questions about socio-demographic characteristics (e.g., age, gender, education).

3.3. Results

To test the mental health indicators for potential improvements, we compared pre- and post-intervention BDI-S and WHO_WB scores. Both indicators improved during the interventions: on average, participants had fewer depressive symptoms and experienced positive moods and feelings more frequently. Preliminary paired sample t-tests showed significant differences between measurement points in both indicators. To test the associations against potential confounding factors in the next step, we applied repeated measures ANOVA, controlled for gender, age, education level, and BMI. Concerning BDI-S, the ANCOVA with Greenhouse-Geisser correction was significant and showed differences between the measurement points of BDI-S ($F(1, 131) = 4.520$, $p < 0.035$). Regarding the WHO Well-Being Index, the ANCOVA with Greenhouse-Geisser correction showed no differences between the measurement points of the WHO Well-Being Index ($F(1, 131) = 2.315$, $p < 0.131$). Results are presented in Table 3.

Table 3. Comparison of variables included in the intervention effectiveness study.

	T1		T2		t-rest	p	F-test+	p	eta²
Variable	M	SD	m	SD					
BDI-S	17.90	5.85	13.69	3.84	9.27	<.001	4.52(131)	.035	.033
WHO-WBI	6.63	3.22	8.96	2.63	-7.51	<.001	2.32(131)	.130	.017

Notes: one-way repeated measure ANCOVA, controlled for gender, age, education level and BMI; BDI-S: Short Beck Depression Inventory; WHO-WBI: WHO Well-Being Index.

3.4. Short discussion

Results of the effectiveness study show that health psychological interventions may have beneficial effects on the participants' mental health, which supports the results of several previous studies [31–37]. This potential effect was robust in the case of depressive symptoms: the improvement could be verified even after controlling for potential confounding variables. In contrast, while improvement in well-being was significant in bivariate analysis, the control variables could partly explain the change in scores. This association means that multivariate analysis did not support the specific improvement in positive mental health for the participants. At the same time, the overall importance of the integration of health psychology services into primary care as an attempt to achieve better mental health and well-being – exemplifying fewer depressive symptoms and positive emotions more frequently – is supported by our results [16,17]. Later programs should be tailored more according to the participants' personal needs and may better rely on the resources and risks in their sociodemographic background.

4. Study 3

4.1. Overview

In addition to the quantitative assessments (Study 2), we organized focus groups from the participants and conducted semi-structured interviews with them. Focus group interviews are deemed appropriate when the purpose of the study is to explore people's shared and specific experiences and knowledge on a topic [39]. We aimed to explore the participants' shared and specific

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experiences and opinions about health psychology services. The inclusion of these experiences into the program evaluation may provide valuable feedback on otherwise not available views on strengths and underdeveloped aspects of the program. Moreover, it may help discover a hitherto vulnerable population, in our case, the participants of health psychology services in a disadvantaged region.

4.2. Methods

Participants and procedure

We employed purposeful sampling adapted to the research question; therefore, we recruited participants with experience in health psychology services as clients. The selection criteria were as follows: age above 18 years, former or ongoing experience in health psychology services, and willingness to share lived experiences of the health psychological consultation process (irrespective of the outcome of the process). During the inductive analysis of the interviews, we used the method of continuous comparison and built a matrix of emergent themes. The length of the interviews ranged from 70 to 120 minutes. Each interview was audio-recorded, anonymized, and then literally transcribed. In cooperation with health psychologists and public health coordinators, we organized one focus group for each model GP cluster with patients who received health psychological care (2-8 patients per group). All in all, 21 patients participated in four focus group interviews. The focus groups were led by two group leaders (the first and second authors) based on the interview guide compiled for this purpose.

Materials

A detailed interview guide was developed for the focus group interviews. The interview guide emphasized the importance of exploring subjective experiences, thoughts, feelings, and social processes. The interview guide covered the following general topics: 1) the process of referral to and usage of the health psychological service, 2) the broader social context of the health psychological service use, and 3) the changes experienced by the participants.

Analytical procedure

We qualitatively analyzed the focus group interviews to answer the research question: What are the participants' experiences with the applied health psychology interventions? The data collection and analysis procedure for the focus group interviews was developed by combining the constant comparison method of Grounded Theory methodology [40] and Framework Analysis (FwA) [41]. FwA "is explicitly geared towards generating policy- and practice-orientated findings…" ([42], p. 184).

4.3. Results

Focus group members experienced positive mental health processes on individual and community levels. We present the five main themes that emerged in the analysis and the interview quotes characteristic of each theme.

Theme 1 – Community instead of isolation

One of the focus groups' most powerful and recurring themes was the shared experience that the health psychology services provided a pathway to new social relationships. Elderly clients and clients living with chronic diseases experienced a significant change in their relationships. Even clients living alone or with a relative still suffering from a chronic illness experienced a sense of community and belongingness through the regular group activities led by the health psychologists.

> *'And now there is an opportunity, there is a community where they don't just listen to you, but you get even help, helping sentences, or you see the interested look on the face of the other, that they don't just listen, but also care about my problem. They may give advice from their own experience' (client)*

The quotation indicates that peers' shared experiences can be as empowering as professional advice. Other participants in individual settings emphasized the novelty of "speaking out" the problems to another person (the health psychologist) after years of "keeping in."

Theme 2 – Autonomy and activity

The experience of the health psychology consultations compensated participants for the feeling of vulnerability due to deprivation, illness, and low mood. They talked about newly acquired skills that helped them gain more control over their lives. Moreover, these experiences helped to motivate the participants to address and involve others in the program.

'I think it would be important for all of us to pass it on and say: yes, this is good, not just because we're happy and having a good time, but because it takes us further in life, in our attitude towards life.' (client)

The changes toward a more autonomous and active way of living encompassed new ways of relationship maintenance with relatives and close ones. As someone put it: 'She [the health psychologist] helped me to start over walking and, later, traveling. Now I'm preparing to visit my son in the capital.' This statement was acknowledged by the focus group for its boldness (going to a metropolis from the village) and, at the same time, for the hoped emotional closeness.

Theme 3 – Openness to psychological help and positive thinking

Awareness and acceptance of psychological help can become the norm in small communities where it was previously rejected and considered shameful. Additionally, clients' horizons could broaden due to psychoeducation and self-experience.

'We are living now! So, a new world has opened up. And it's such a beautiful thing when a psychologist leads you to find the beauty of your living now' (client)

Other participants also referred to 'new ways of thinking' and the 'unexpected usefulness' of psychological counseling they could implement in their lives.

Theme 4 – Healing grief and negative emotions

A recurring mental health problem in the studied groups had the devastating effect of untreated, unelaborated loss and grief processes on the quality of life and health. This burden could be significantly reduced with the help of psychological interventions; participants reported getting through grief and loss. A participant who was mistreated during eye surgery talked about their subsequent recovery:

'…when I started coming here, there was such terrible hatred, anger, and other kinds of negative feelings in my soul towards those who messed me up in the hospital ... it disappeared from me and I put things in a different frame, and that's what the psychologist taught me' (client)

This quotation shows that while healthcare experiences can be a recurring source of stress and trauma, health psychologists' consultations have mitigating and empowering potential. Self-acceptance and self-compassion were other essential skills that many participants mentioned: in disadvantaged regions, people often feel guilty and ashamed about their situations. The health psychologists' acceptance and normalization of negative feelings contributed to a new way of thinking mentioned above.

Theme 5 – The security of mental and somatic rehabilitation

In addition to the above experiences, patients reported better cooperation (adherence) with their general practitioners (GPs). In the patients' experience, health psychologists provided valuable insights into mental and somatic rehabilitation.

'I was still just recently operated and all these and other bad things… And then the doctor saw it in my final report and he told the psychologist and here, practically my rehabilitation continued with this program.… Here, however, I found a complete cure. First, I was with the psychologist for six sessions, then we asked for six more.' (client)

The cooperation between the health professionals – here, between the GP and the health psychologist; in other cases, between the psychologist and the dietician or the physiotherapist – provided the participants with valuable security experience. The psychological help was integrated into the team's collaboration, giving the participants a sense of 'completeness' in the care.

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4.4. Short discussion

The analysis of the interviews revealed the impact of the health psychologist's work. The themes represent the main paths of the patients toward improved mental and physical well-being. They showed that positive, resource-mobilizing and mental health processes were taking place in the communities studied at the individual and community levels. In all four praxis communities, an important experience was the reduction of isolation and the experience of peer support among elderly clients and clients with chronic illnesses. Based on all previous findings, reducing isolation and increasing support is one of the most important goals for disadvantaged groups [43]. Changes in social experiences, the participants' increased self-confidence and activity, and a broadening of horizons through psychoeducation are mutually supportive. A significant result is the recognition and acceptance of psychological support as the norm in communities where it was previously shamed and rejected. A recurring mental health problem in the communities studied is the detrimental impact of unaddressed and unprocessed loss and bereavement processes on the quality of life and health, which can be significantly reduced through health psychology interventions. In addition to supporting their physical health, the programs, led by a team of professionals (health psychologist, dietician, physiotherapist), provided participants with a community experience that became an experience of basic security for them. Furthermore, the teams' collaboration with GPs also helped increase patient compliance.

5. General discussion

The present paper supported the effectiveness of a reformulated primary care service, with a special focus on community health psychology services of the Primary Health Care Development Model Program in the most disadvantaged regions of Hungary. The four GP clusters in the Model Program provided a community and prevention-focused service relying on various health professionals. Among them, the program employed community health psychologists, who were committed to exposing and challenging harmful social inequalities as part of collective action in order to create more health-promoting social environments for those who might be involved in social struggles [18–20].

Our findings suggest that with specific administration and support, groups of the most disadvantaged sociodemographic and health characteristics can also be helped to gain access to a higher level of health care. These may include new services they did not know about before, such as different forms of support given by health psychologists. We found that the Model Program was primarily accessed by those needing it the most: clients with poorer general health conditions and a higher depression rate. The Model Program's individual and group health psychology services demonstrated significant health gains resulting from the interventions: lower depression and a higher level of general well-being were reported. These results supported that the care provided by health psychologists benefits the individual clients [44]. Moreover, psychological interventions may reduce the burden of treating patients with medically unexplained symptoms [45,46] which is a prevalent problem in disadvantaged populations [47].

It is a general phenomenon worldwide that many patients with mental health issues seek help only in primary care, and research suggests that most mental disorders are treated by general practitioners [16,48]. Our results converge with those detailed in the literature, namely that participation in individual or group health psychology interventions is relevant in primary care as well [31–37]. More specifically, in poorer communities and the ones comprised of the Roma ethnic minority, our results indicated that both individual and group interventions could be effective in case the appropriate path is chosen for the client. However, the occurrence of a higher depression rate may also indicate the need for psychiatric/psychotherapeutic care, and that would lie beyond the competence of primary care health psychologists.

Based on the themes of the focus group interviews, the health psychology services had empowering effects. Respondents reported mental and behavioral resource mobilization processes in the examined practice communities at individual and community levels. In all four practice communities, there was a growing experience of perceived social support, an increase in self-

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confidence and social activity, and a broadening of horizons due to psychoeducation, mainly among the elderly and those with chronic illnesses. These experiences can enhance physical-mental recovery, treatment adherence, and rehabilitation and provide an opportunity for sharing experiences in the community. Moreover, shared experiences may reduce the shame associated with illness through acceptance and help to cope with loss, grief, stress, and negative feelings.

5.1. Limitations

The research presented here has yet to be able to answer some questions, as it faces several objective obstacles. First, we highlight the relatively small number of effectiveness study's respondents compared to the whole HSA sample, which should be considered when interpreting the results. The participant involvement process was challenging because the psychological care capacity development was slower than expected during the Model Program. Health psychology services are a labor-intensive form of care that reaches significantly fewer participants than large public health programs (e.g., information days). Consequently, the capacity of psychologists was limited, as only one psychologist by practice community was available. Additionally, because of the clinical level of mental health problems, many patients were referred to psychiatrists and could not participate in health psychological care. In addition, in these targeted disadvantaged regions, the patients' lower education, socioeconomic status, lack of experience and knowledge about health psychology, and the stigma associated with seeking psychological help could also be an underlying factor that may have affected the willingness to engage in consultations or group sessions [23–25].

Furthermore, the effectiveness study was conducted only in the last year of the Model Program, which means that not everyone took part in it who received health psychological care during the whole program period. So the monitoring period was relatively short compared to the total duration of the Model Program. The results thus necessarily represent only a part of the total operating time of the Model Program, which explains why a detailed analysis of each form of intervention was not possible. Therefore, in further developing and extending community health psychology programs, special attention must be devoted to ensuring that the psychological health assessment becomes part of the services, both during the involvement in the services and during its closure and the follow-up phase.

The generalizability of the results may also be limited, given that we did not apply a control group against which we could have compared the intervention group. While our results show a significant increase in the participants' well-being during the program, future studies may use randomized controlled design to provide evidence on the extent to which this increase can be attributed to the specific health psychological intervention. In addition, participation in the intervention study was voluntary, which may raise the possibility of self-selection bias.

6. Conclusions

Health psychology care, where it was available permanently, was considered especially supporting and empowering. Participants revealed severe concerns regarding the termination of the program in all communities that experienced the benefits of the psychological services: they required the long-term availability of services provided by psychologists. Therefore, we consider it extremely important that community health psychologists undergo preparatory training before starting work. During training, they can get an idea of the unique requirements and challenges of primary care work and the specific needs of the different socio-cultural groups [49,50].

The presented results demonstrate that health psychology services provided at the primary care level can significantly improve general health indicators, even among patients belonging to the most disadvantaged groups. The development of the GPs Clusters provides new, complex social-ecological environments. These environments – also called personal niches [51] – are the systemic requirements for promoting individuals' and communities' health. More generally, they may develop psychological and community relationship culture and, thus, reduce social inequality and raises general well-being.

Supplementary Materials: -

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Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Ethics Committee of the ETT TUKEB, Budapest, Hungary (file no: 56143-/2015/EKU).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy restrictions.

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References

1. Hansen, J.; Groenewegen, P.P.; Boerma, W.G.W.; Kringos, D.S. Living In A Country With A Strong Primary Care System Is Beneficial To People With Chronic Conditions. *Health Aff. (Millwood)* **2015**, *34*, 1531–1537, doi:10.1377/hlthaff.2015.0582.
2. Hefford, M.; Crampton, P.; Foley, J. Reducing Health Disparities through Primary Care Reform: The New Zealand Experiment. *Health Policy* **2005**, *72*, 9–23, doi:10.1016/j.healthpol.2004.06.005.
3. Macinko, J.; Starfield, B.; Shi, L. The Contribution of Primary Care Systems to Health Outcomes within Organization for Economic Cooperation and Development (OECD) Countries, 1970–1998. *Health Serv. Res.* **2003**, *38*, 831–865, doi:10.1111/1475-6773.00149.
4. Norbury, M.; Mercer, S.W.; Gillies, J.; Furler, J.; Watt, G.C.M. Time to Care: Tackling Health Inequalities through Primary Care. *Fam. Pract.* **2011**, *28*, 1–3, doi:10.1093/fampra/cmq118.
5. Bloom, D.E.; Cafiero, E.; Jané-Llopis, E.; Abrahams-Gessel, S.; Bloom, L.R.; Fathima, S.; Feigl, A.B.; Gaziano, T.; Hamandi, A.; Mowafi, M.; et al. *The Global Economic Burden of Noncommunicable Diseases*; PGDA Working Papers; Program on the Global Demography of Aging, 2012;
6. Baji, P.; Brodszky, V.; Rencz, F.; Boncz, I.; Gulácsi, L.; Péntek, M. [Health status of the Hungarian population between 2000-2010]. *Orv. Hetil.* **2015**, *156*, 2035–2044, doi:10.1556/650.2015.30288.
7. Eris, M. *Improving Health Outcomes and System in Hungary*; OECD: Paris, 2012;
8. Lenard, R. Vulnerability and Chaos in the Hungarian Healthcare System. *Heinrich Böll Stift.* **2018**.
9. Ács, A.; Molnár, E.; Molnár, G.; Balogh, Z. The Care of People Living with Mental Illness in the Hungarian Social Care System: The Process of Deinstitutionalization and the Phenomenon of Stigmatization. *Dev. Health Sci.* **2019**, *2*, 1–8, doi:10.1556/2066.2.2019.001.
10. Swiss Federal Council; Government of Hungary *Framework Agreement Between The Swiss Federal Council and the Government of Hungary Concerning the Implementation of the Swiss–Hungarian Cooperation Programme to Reduce Economic and Social Disparities within the Enlarged European Union*; 2017;
11. Ádány, R.; Kósa, K.; Sándor, J.; Papp, M.; Fürjes, G. General Practitioners' Cluster: A Model to Reorient Primary Health Care to Public Health Services. *Eur. J. Public Health* **2013**, *23*, 529–530, doi:10.1093/eurpub/ckt095.
12. Sándor, J.; Kósa, K.; Fürjes, G.; Papp, M.; Csordás, Á.; Rurik, I.; Ádány, R. Public Health Services Provided in the Framework of General Practitioners' Clusters. *Eur. J. Public Health* **2013**, *23*, 530–532, doi:10.1093/eurpub/ckt096.
13. Martos, T.; Sallay, V.; Papp-Zipernovszky, O.; Bodóné Rafael, B.; Pintér, J.N.; Csabai, M. A Praxisközösségi Működés Tapasztalatai Az Egészségpszichológus Szemszögéből. *Népegészségügy* **2017**, *95*, 52–56.
14. Saltman, R.; Bankauskaite, V.; Vrangbaek, K. *Primary Care In The Driver'S Seat?: Organizational Reform in European Primary Care*; McGraw-Hill Education (UK), 2005; ISBN 978-0-335-21365-8.

15. Gunn, W.B., Jr.; Blount, A. Primary Care Mental Health: A New Frontier for Psychology. *J. Clin. Psychol.* **2009**, *65*, 235–252, doi:10.1002/jclp.20499.
16. Haas, L.; Degruy, F. Primary Care, Psychology and Primary Care Psychology. In *Handbook of primary care psychology*; Haas, L., Ed.; Oxford University Press: Oxford, 2004; pp. 5–20.
17. Thielke, S.; Thompson, A.; Stuart, R. Health Psychology in Primary Care: Recent Research and Future Directions. *Psychol. Res. Behav. Manag.* **2011**, *4*, 59–68, doi:10.2147/PRBM.S12996.
18. World Health Organization *Cancer Control: A Global Snapshot in 2015: Summary of Results from the 2015 WHO NCD Country Capacity Survey*; World Health Organization: Geneva, 2016;
19. World Health Organization *World Health Statistics Overview 2019: Monitoring Health for the SDGs, Sustainable Development Goals*; World Health Organization: Geneva, 2019;
20. Campbell, C.; Cornish, F. Reimagining Community Health Psychology: Maps, Journeys and New Terrains. *J. Health Psychol.* **2014**, *19*, 3–15, doi:10.1177/1359105313500263.
21. Ádány, R.; Csordás, Á.; Fürjes, G.; Grósz, A.; Gutási, É.; Henter, I.; Kósa, K.; Morvai, G.; Papp, M.; Perczel Forintos, D.; et al. A Praxisközösségek Eljárásrendje. Verzió 5.0. [Protocols of the General Practitioners' Clsuters. Version 5.0] 2015.
22. Ádány, R. Roma Health Is Global Ill Health. *Eur. J. Public Health* **2014**, *24*, 702–703, doi:10.1093/eurpub/cku143.
23. Biddle, L.; Gunnell, D.; Sharp, D.; Donovan, J.L. Factors Influencing Help Seeking in Mentally Distressed Young Adults: A Cross-Sectional Survey. *Br. J. Gen. Pract.* **2004**, *54*, 248–253.
24. Koydemir-Özden, S.; Erel, Ö. Psychological Help-Seeking: Role of Socio-Demographic Variables, Previous Help-Seeking Experience and Presence of a Problem. *Procedia - Soc. Behav. Sci.* **2010**, *5*, 688–693, doi:10.1016/j.sbspro.2010.07.166.
25. Picco, L.; Abdin, E.; Chong, S.A.; Pang, S.; Shafie, S.; Chua, B.Y.; Vaingankar, J.A.; Ong, L.P.; Tay, J.; Subramaniam, M. Attitudes Toward Seeking Professional Psychological Help: Factor Structure and Socio-Demographic Predictors. *Front. Psychol.* **2016**, *7*.
26. Kósa, K.; Katona, C.; Papp, M.; Fürjes, G.; Sándor, J.; Bíró, K.; Ádány, R. Health Mediators as Members of Multidisciplinary Group Practice: Lessons Learned from a Primary Health Care Model Programme in Hungary. *BMC Fam. Pract.* **2020**, *21*, 19, doi:10.1186/s12875-020-1092-7.
27. Rózsa, S.; Szádóczky, E.; Füredi, J. A Beck Depresszió Kérdőív Rövidített Változatának Jellemzői Hazai Mintán. [Psychometric Properties of the Hungarian Version of the Shortened Beck Depression Inventory.]. *Psychiatr. Hung.* **2001**, *16*, 384–402.
28. Goldberg, D.P.; Williams, P. *User's Guide to the General Health Questionnaire*; NferNelson: Windsor, 1988;
29. Parslow, R.A.; Jorm, A.F. Who Uses Mental Health Services in Australia? An Analysis of Data from the National Survey of Mental Health and Wellbeing. *Aust. N. Z. J. Psychiatry* **2000**, *34*, 997–1008, doi:10.1080/000486700276.
30. Stead, R.; Shanahan, M.J.; Neufeld, R.W.J. "I'll Go to Therapy, Eventually": Procrastination, Stress and Mental Health. *Personal. Individ. Differ.* **2010**, *49*, 175–180, doi:10.1016/j.paid.2010.03.028.
31. Bartels, S.J.; Coakley, E.H.; Zubritsky, C.; Ware, J.H.; Miles, K.M.; Areán, P.A.; Chen, H.; Oslin, D.W.; Llorente, M.D.; Costantino, G.; et al. Improving Access to Geriatric Mental Health Services: A Randomized Trial Comparing Treatment Engagement With Integrated Versus Enhanced Referral Care for Depression, Anxiety, and At-Risk Alcohol Use. *Am. J. Psychiatry* **2004**, *161*, 1455–1462, doi:10.1176/appi.ajp.161.8.1455.
32. Bortolotti, B.; Menchetti, M.; Bellini, F.; Montaguti, M.B.; Berardi, D. Psychological Interventions for Major Depression in Primary Care: A Meta-Analytic Review of Randomized Controlled Trials. *Gen. Hosp. Psychiatry* **2008**, *30*, 293–302, doi:10.1016/j.genhosppsych.2008.04.001.
33. Cape, J.; Whittington, C.; Buszewicz, M.; Wallace, P.; Underwood, L. Brief Psychological Therapies for Anxiety and Depression in Primary Care: Meta-Analysis and Meta-Regression. *BMC Med.* **2010**, *8*, 38, doi:10.1186/1741-7015-8-38.
34. Chibanda, D.; Weiss, H.A.; Verhey, R.; Simms, V.; Munjoma, R.; Rusakaniko, S.; Chingono, A.; Munetsi, E.; Bere, T.; Manda, E.; et al. Effect of a Primary Care–Based Psychological Intervention on Symptoms of Common Mental Disorders in Zimbabwe: A Randomized Clinical Trial. *JAMA* **2016**, *316*, 2618–2626, doi:10.1001/jama.2016.19102.
35. Finney, J.W.; Riley, A.W.; Cataldo, M.F. Psychology in Primary Health Care: Effects of Brief Targeted Therapy on Children's Medical Care Utilization1. *J. Pediatr. Psychol.* **1991**, *16*, 447–461, doi:10.1093/jpepsy/16.4.447.
36. Richards, D.A.; Hill, J.J.; Gask, L.; Lovell, K.; Chew-Graham, C.; Bower, P.; Cape, J.; Pilling, S.; Araya, R.; Kessler, D.; et al. Clinical Effectiveness of Collaborative Care for Depression in UK Primary Care (CADET): Cluster Randomised Controlled Trial. *BMJ* **2013**, *347*, f4913, doi:10.1136/bmj.f4913.
37. Rollman, B.L.; Belnap, B.H.; Mazumdar, S.; Houck, P.R.; Zhu, F.; Gardner, W.; Reynolds, C.F., III; Schulberg, H.C.; Shear, M.K. A Randomized Trial to Improve the Quality of Treatment for Panic and Generalized Anxiety Disorders in Primary Care. *Arch. Gen. Psychiatry* **2005**, *62*, 1332–1341, doi:10.1001/archpsyc.62.12.1332.

38. Susánszky, É.; Konkoly Thege, B.; Stauder, A.; Kopp, M. A WHO Jól-Lét Kérdőív Rövidített (WBI-5) Magyar Változatának Validálása a Hungarostudy 2002 Országos Lakossági Egészségfelmérés Alapján. *Mentálhig. És Pszichoszomatika* **2006**, *7*, 247–255, doi:10.1556/mental.7.2006.3.8.
39. Krueger, R.A. *Focus Groups: A Practical Guide for Applied Research*; SAGE Publications, 2014; ISBN 978-1-4833-6523-7.
40. Strauss, A.L.; Corbin, J. Grounded Theory Methodology-An Overview. Handbook of Qualitative Research. NK Denzin and YS Lincoln 1994.
41. Ritchie, J.; Spencer, L. Qualitative Data Analysis for Applied Policy Research. In *Analyzing Qualitative Data*; Routledge, 1994 ISBN 978-0-203-41308-1.
42. Green, J.; Thorogood, N. *Qualitative Methods for Health Research*; SAGE, 2018; ISBN 978-1-5264-4880-4.
43. Wang, J.; Lloyd-Evans, B.; Giacco, D.; Forsyth, R.; Nebo, C.; Mann, F.; Johnson, S. Social Isolation in Mental Health: A Conceptual and Methodological Review. *Soc. Psychiatry Psychiatr. Epidemiol.* **2017**, *52*, 1451–1461, doi:10.1007/s00127-017-1446-1.
44. Brannon, L.; Feist, J.; Updegraff, J.A. *Health Psychology: An Introduction to Behavior and Health*; Cengage Learning, 2013; ISBN 978-1-285-68707-0.
45. Burton, C.; McGorm, K.; Richardson, G.; Weller, D.; Sharpe, M. Healthcare Costs Incurred by Patients Repeatedly Referred to Secondary Medical Care with Medically Unexplained Symptoms: A Cost of Illness Study. *J. Psychosom. Res.* **2012**, *72*, 242–247, doi:10.1016/j.jpsychores.2011.12.009.
46. Reid, S.; Whooley, D.; Crayford, T.; Hotopf, M. Medically Unexplained Symptoms--GPs' Attitudes towards Their Cause and Management. *Fam. Pract.* **2001**, *18*, 519–523, doi:10.1093/fampra/18.5.519.
47. Mariman, A.; Vermeir, P.; Csabai, M.; Látos, M.; Weiland, A.; Stegers-Jager, K.M.; Jacobs, M.L.; Vogelaers, D. Perceptions and Attitudes of Health Care Givers and Patients on Medically Unexplained Symptoms: A Narrative Review with a Focus on Cultural Diversity and Migrants. *Med. Clin. Res.* **2021**, *6*, 482–486.
48. Regier, D.A.; Narrow, W.E.; Rae, D.S.; Manderscheid, R.W.; Locke, B.Z.; Goodwin, F.K. The de Facto US Mental and Addictive Disorders Service System: Epidemiologic Catchment Area Prospective 1-Year Prevalence Rates of Disorders and Services. *Arch. Gen. Psychiatry* **1993**, *50*, 85–94, doi:10.1001/archpsyc.1993.01820140007001.
49. Goodie, J.L.; Ware, C.M.; Hunter, C.L. Necessary Training for Psychologists Working in Primary Care Settings. In *Handbook of Psychological Assessment in Primary Care Settings*; Routledge, 2017 ISBN 978-1-315-65840-7.
50. Schulte, T.J.; Isley, E.; Link, N.; Shealy, C.N.; Winfrey, L.L. General Practice, Primary Care, and Health Service Psychology: Concepts, Competencies, and the Combined-Integrated Model. *J. Clin. Psychol.* **2004**, *60*, 1011–1025, doi:10.1002/jclp.20032.
51. Martos, T.; Sallay, V. Enhanced Living Environments from the Viewpoint of Socioecological Psychology. In *Enhanced Living Environments: From models to technologies*; Goleva, R.I., Ganchev, I., Dobre, C., Garcia, N., Valderrama, C., Eds.; Institution of Engineering and Technology, 2017; pp. 21–47 ISBN 978-1-78561-211-4.