Assessment of the municipal mental health program

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Summary

Aim. The aim of this article was to assess the structure of municipal Mental Health Program.

Method. The subject of the analysis was the Gdansk Mental Health Program for the years 2016–2023. The program was verified through comparison with the model of health policy program, developed by the Agency for Health Technology Assessment and Tariff System. Particular attention was paid to the presence of all recommended components of a program and the precise definition of terminology, especially the formulated goals, expected results and efficiency measures.

Results. The evaluated program does not contain required components of the health policy program. Unfortunately, this affects its quality. The document reveals a lack of estimation of the program implementation costs. The main goals and specific objectives do not meet the SMART criteria. Among the measures of effectiveness included in the program, the product indicators of quantitative nature have the largest share. Additionally, there is a lack of information on how to measure quality results and determine impact indicators. Regarding the evaluation, the assessment of the quality of services, their effectiveness and durability of the intended effects were not taken into account.

Conclusions. Structural recommendations for mental health programs are needed. They would increase the effectiveness of the planned activities. Such effect could be achieved by use of criteria for health policy programs expressed in the Act of 27 August 2004 on health care benefits financed from public funds. Mental health programs would benefit if they were consulted by public health specialists.

Key words: health program, program evaluation, mental health

Introduction

Article 5 of the Act of 27 August 2004 on health care benefits financed from public funds, defines a health policy program as a set of planned and intentional health care interventions assessed as effective, safe, justified and makes it possible to achieve in
a designated time frame goals of detecting and meeting health care needs and improving the health of a defined group of beneficiaries. Such a program is designed, implemented, conducted and financed by the Minister or a local government agency [1]. According to this Act, National Health Fund (NHF) may design, implement, conduct and finance health programs, whereas Ministers and local government agencies may design, implement, conduct and finance health policy programs (HPP).

The draft health policy program is developed on the basis of maps of health needs and available epidemiological data. Article 48a section 2 includes a detailed list of required components of a HPP and a series of footnotes points to the procedures and criteria of assessing such programs. In particular, local government agencies are required to submit drafts of HPPs to the AHTATSPol (Agency for Health Technology Assessment and Tariff System in Poland) and this agency is required to assess the draft within 2 months of submission [1]. Article 31a section 1 and article 48 section 4 describe in detail the criteria that must be taken into account by the AHTATSPol report and an opinion on a HPP.

However, HPPs that have a legal basis in laws with a narrow focus are not required to meet the detailed criteria of the Act on health care benefits financed from public funds. These programs are not required to be assessed by a team of experts such as the AHTATSPol. In a statement issued by the Ministry of Health on March 21\textsuperscript{st} 2013 [2], the regional mental health care program is described as such a program. It is based on article 2 section 4 item 1 of the Mental Health Act of 19 August 1994 and the Regulation of the Council of Ministers of 8 February 2017 regarding the National Mental Health Program for the years 2017–2022 (NMHP) [3]. Thus, the project does not have to meet detailed criteria for health policy projects included in the Act on health care benefits financed from public funds, in particular it does not have to be assessed by a professional entity such as the AHTATSPol.

It is noteworthy that the current Polish mental health laws, in particular the Mental Health Act of 19 August 1994, specify the goals and tasks of regional and local mental health programs and indicate who is responsible for designing them (local government agencies), yet they do not specify the formal criteria and indicators of such HPPs, as it is in the case of the Act on health care benefits financed from public funds and guidelines of the AHTATSPol [4].

HPP model developed by the AHTATSPol is a guideline for local government agencies on how to design effective health programs. It is an evidence-based model that emphasizes setting goals and measures of effectiveness. It was designed based on health technology assessment [5] and EUenHTA recommendations [6].

The Gdansk Mental Health Program for the years 2016–2023 (GMHP), which was adopted for implementation under Resolution No. 665/16 of the Gdansk City Council on 31 May 2016, was selected for the evaluation of the municipal mental health program [7]. It was inspired by the National Mental Health Program 2011–2015 [8], the predecessor of the current National Mental Health Program 2017–2022 and the recommendations of the Civic Coalition for Mental Health (Obywatelska Koalicja na
Rzecz Zdrowia Psychicznego) [9]. The GMHP was designed based on the goals of the National Health Program [10] regarding the prevention and promotion of mental health and the goals of the current National Mental Health Program [3] regarding the interventions within the community model of mental health care and the social integration of people with mental illness. Detailed analysis of the structure of this document is the subject of this work.

**Methodology**

The subject of the analysis was the Gdansk Mental Health Program for the years 2016–2020 (GMHP) [7]. Its structure was compared with the model of health policy program (HPP) developed by the AHTATSPol. Particular attention was paid to the presence and precise definition of all recommended components of the program:

1) Information about the authors of the program and its implementation period.
2) Description of the health problem.
3) Program goals (description of the general goal; description of specific goals; It is checked whether the goals meet the SMART criteria according to management theory of Petera F. Drucker [11] and whether the expected outcomes and measures of effectiveness relevant to the goals are defined).

According to the management theory, a goal must be specific, measurable, achievable, relevant and time – and cost-bound.

In our assessment we used the definition of monitoring measures listed in the operational programs conducted as part of the European Social Fund (such as the Human Capital Operational Program) [12]. Based on the phases of program implementation, these can divided into three basic groups:

a) Product measures – regarding the specific program, expressed in physical units;
b) Outcome measures – regarding the short-term, immediate effects of interventions on program participants, undertaken as part of the program. These can be expressed in physical units or as percentages (hard indicators). They can also assess qualitative data (soft indicators);
c) Measures of influence – long-term measures, demonstrate the influence of the program in the context of social or economic changes. They are monitored at the level of the general and specific goals of the program.

4) Beneficiaries of the program.
5) Program design (is the program divided into phases of implementation, are the planned interventions clearly defined including the time frames of completion, is there any evidence for effectiveness of the interventions undertaken as part of the program, are there EBM-based guidelines or standards of managing the defined health problem).
6) Costs (are the costs of individual interventions and the total costs of program implementation estimated).
7) Arguments regarding resources (did the authors specify the reasons for choosing this program).
8) Monitoring and evaluation (do the authors plan to assess: program recruitment; the quality of services included in the program; effectiveness of the program and the durability of its effects).

Results

Table 1 shows a summarized comparison of the structure of the GMHP with the HPP model recommended by the AHTATSPol.

Table 1. Comparison of the structure of the GMHP with the HPP model recommended by the AHTATSPol

<table>
<thead>
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<th>HPP MODEL</th>
<th>GMHP</th>
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<td>– authors</td>
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<td></td>
<td>– continuation/ program consistency</td>
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<td><strong>2. Description of the health problem</strong></td>
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<td>– justification for program implementation</td>
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<td><strong>3. Program goals</strong></td>
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<td>– imprecise description</td>
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<td></td>
<td>– specific goals</td>
<td>– described not using the SMART criteria</td>
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<td></td>
<td>– effects</td>
<td>– no information</td>
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<td></td>
<td>– measures of effectiveness</td>
<td>– described</td>
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<td><strong>4. Beneficiaries of the program</strong></td>
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<td>– recruitment into the program</td>
<td>– no information</td>
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<td><strong>5. Program design</strong></td>
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<td></td>
<td>– planned interventions</td>
<td>– detailed description</td>
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<td></td>
<td>– qualification criteria</td>
<td>– no information</td>
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<td></td>
<td>– evidence of program effectiveness</td>
<td>– no information</td>
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<td></td>
<td>– standards, guidelines</td>
<td>– no information</td>
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<td><strong>6. Costs</strong></td>
<td>– cost per unit</td>
<td>– no information</td>
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<tr>
<td></td>
<td>– estimated total costs</td>
<td>– no information</td>
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<tr>
<td></td>
<td>– funding sources</td>
<td>– imprecise description</td>
</tr>
<tr>
<td><strong>7. Arguments regarding available resources</strong></td>
<td>– reasons for choosing the program</td>
<td>– no information</td>
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Detailed analysis of the GMHP content using the HPP model

(1) Basic information

The GMHP does not specify the time frames for program completion. There is no information about authors of the program, continuation and consistency. Conclusions about the completion of the previous GMHP (for the years 2012–2015) are mentioned later in the document, in the section about funding sources.

(2) Description of the health problem

Description of the health problem is included in the introductory information. There is a precise definition of mental health and the population qualified for inclusion in the program. More details are included in the “Catalogue of illnesses among the beneficiaries of the program”. In its interventions, the program also includes people in the surroundings of beneficiaries, e.g., their families, community members and members of all members of all professional groups providing a broad range of assistance.

Justification of the need to implement and conduct the program is one of the first items described in the first part of the GMHP. It includes 6 points such as improving the patients’ quality of life, need to identify current problems, recognizing available resources, performing municipality’s own tasks and reserving funds for this tasks in the municipality’s budget. The above-mentioned issues are clearly defined in the GMHP and justify the need to implement this program and to continue it in the future.

Epidemiology of mental health disorders is described in the second part of the program entitled “Diagnoza” (“Diagnosis”). Numerous sources, including publicly available data (e.g., the EZOP study from 2010–2011 or the local data bank of the General Statistical Office for Pomeranian Voivodeship) and commissioned reports (e.g., the ESPAD 2015 report on alcohol and psychoactive substance abuse among junior and comprehensive secondary school students in Gdansk or the Millward Brown report on the incidence of domestic violence) were used to compile it. The extent of the above-listed sources of information appears to be sufficient to assess the needs of the population of Gdansk.
The further part of the “Diagnosis” chapter discusses the existing support for people with mental problems in Gdansk. The support network is visualized on a map of Gdansk with marked mental health providers and addiction treatment centers. The map is based on the data from the Department of Social Development of the City Office in Gdansk. Information about types of provided health care services and their costs is based on the data of the Pomeranian Branch of the National Health Fund for the years 2010–2014. The existing management of people with mental health problems in Gdansk appears to be well-described.

(3) Program goals

The general goal of the GMHP is to build a local system that ensures optimal opportunities and conditions for mental development of the residents of Gdansk and to improve the quality of life of people experiencing mental crises or difficulties and suffering from mental illnesses, as well as their families, caretakers and community members.

Detailed goals of the GMHP are as follows:

I. Prevention – to improve the value of mental health and to reduce the conditions that put mental health at risk.
II. Intervention – to develop diagnostic and treatment interventions that are available, early and complete, as well as to ensure patient safety and mental health care.
III. Integration – to maintain, strengthen or to return patients to their social roles, to help them regain independence and social activity in accordance with their abilities.
IV. Coordination and management – to build a mental health care management system.

Meeting all of the SMART criteria ensures that the goal is fully defined, which significantly increases the likelihood that it will be successfully achieved. Goal I is ambiguous because there is no definition of “the conditions that put mental health at risk”. Therefore it is difficult to plan and assess the completion of this goal. Goal II, i.e., “to develop diagnostic and treatment interventions that are early and complete, as well as to provide patients with mental health care” is specific and realistic. However, its timeframe and costs are not defined, therefore it will be difficult to measure its implementation and compare it with the previous period. Goal III “social integration and return of patients to their social roles” seems idealistic and not entirely realistic. In addition, it includes the phrase “in accordance with their abilities” which makes it impossible to define it and to assess its completion. Goal IV – “to build a mental health care management system” – is, again, too general, difficult to assess and estimate. The timeframe for the completion of the GMHP’s goals is defined as 2016–2023. Lack of detailed timeframes for program’s goals and tasks reduces discipline in implementation and completion of the program.
An important factor in analyzing the program’s effectiveness are monitoring measures, quantitatively shown in Table 2.

Table 2. Monitoring measures of goal completion

<table>
<thead>
<tr>
<th>DETAILED GOALS OF THE GMHP</th>
<th>MONITORING MEASURES</th>
</tr>
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| **1. Prevention** – to improve the value of mental health and to reduce the conditions that put mental health at risk. | I Product measures: 2  
II Outcome measures  
– hard: 3  
– soft: 1  
III Measures of influence: 0 |
| **2. Intervention** – to develop diagnostic and treatment interventions that are available, early and complete, as well as to ensure patient safety and mental health care. | I Product measures: 1  
II Outcome measures  
– hard: 1  
– soft: 1  
III Measures of influence: 0 |
| **3. Integration** – to maintain, strengthen or to return patients to their social roles, to help them regain independence and social activity in accordance with their abilities. | I Product measures: 1  
II Outcome measures  
– hard: 1  
– soft: 1  
III Measures of influence: 0 |
| **4. Coordination and management** – to build a mental health care management system. | I Product measures: 5  
II Outcome measures  
– hard: 1  
– soft: 0  
III Measures of influence: 0 |

Source: own elaboration on the basis of the Gdansk Mental Health Program for the years 2016–2023

Majority of the monitoring measures listed in the GMHP are quantitative product measures (number of implemented projects, number of program beneficiaries). Unfortunately, the number of satisfied program participants or soft measures are not a reliable measure of effectiveness. The project does not mention quantitative measurement of satisfaction from the interventions and comparing the awareness and knowledge of the residents of Gdansk before and after the planned interventions. Measures of influence are also undefined.

(4) Beneficiaries of the program

In the introduction of the discussed document, there is the “Catalogue of illnesses among the beneficiaries of the program” based on the International Classification of Diseases ICD-10. In the third chapter, regarding on the goals, the program identifies
direct and indirect beneficiaries of the undertaken actions. There is no estimation of the population that can be included in the program. The only available data on the potential recipients of the program are data from the Health Department of the Pomeranian Voivodeship Office for medical entities in the city of Gdansk for the years 2010–2014 regarding the number of patients with mental disorders who visited Gdansk Mental Health Clinics in 2012–2014.

The number of people who do not use the available resources despite their mental health problems is unknown. There is also no information about how people are recruited to participate in the program, most likely due to the wide range of interventions.

(5) Program design

The GMHP is divided into tasks that are relevant to each of the detailed goals. These tasks are independent of each other, they are not listed as phases and are supposed to be completed simultaneously during the program period. There is a coordinator and an implementer assigned to each of the tasks, however, the qualifications and scope of responsibilities of these people are undefined. The listed tasks are clearly related to the provision of publicly-funded health care services, however, there is no information how these activities are specifically connected. There is also no evidence for the effectiveness of the planned interventions, no EBM-based guidelines or standards.

(6) Costs

The GMHP is supposed to be financed from “funds allocated annually in the budget of the Municipality of Gdansk, including other complementary strategic programs and funds from external sources” – such a general note is included in the Introductory Information. There is a lack of specific total and unit cost assessment relevant to the completion of specific goals.

(7) Arguments regarding resources

The analyzed document does not contain such information.

(8) Monitoring and evaluation

Tasks related to organizing the inter-agency cooperation for the implementation, monitoring and evaluation of the program are included in the detailed goal IV of the GMHP. An Implementation Team was set up in order to coordinate the completion of the program. The tasks of the team include program evaluation, development of methods and tools for monitoring the situation of people in mental crisis and their families, constant monitoring of the program implementation level and preparation of
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annual reports on its implementation submitted to the Gdansk City Council. In addition, a program council was appointed, i.e., the Gdansk Council for Mental Health – of strategic importance, as well as the Gdansk Forum for Mental Health. However, there are no detailed plans for the future evaluation of the effectiveness and sustainability of program effects.

Discussion

To our knowledge, this is the first Polish publication analyzing a local mental health program using the existing guidelines and scientific evidence. The authors of existing literature on this subject focused foremost on the issues of program usefulness [13], effectiveness and outcome assessment [14].

A comparison with the AHTATSPol guidelines revealed significant shortcomings in the formal structure of this document which could have been avoided if the design was based on available guidelines. A major shortcoming is the lack of cost assessments, which makes it impossible to make an economic analysis using the HTA methodology.

Global trends demonstrate that economic analysis methods (in particular cost/benefit and cost/effectiveness) are one of the basic tools influencing decision making processes [15]. They make it possible to assess the interventions of health care programs and therefore to select the ones that most effectively influence health and are economically viable given a limited budget. The GMHP lists neither unit costs per person, nor the total cost. The authors only provided sources of financing for the planned activities. There is no fixed amount of money guaranteed annually in the city budget, which means that there is no guarantee of completing any tasks. A thoroughly planned budget is a reflection of an adopted strategy in time. In the case of the GMHP, this is an 8-year time frame planned for the years 2016–2023. It is widely understood that the use of public money for implementation of program tasks should undergo a thorough economic analysis that takes into account the allocation of funds for each year of program duration [16].

The general goal and the detailed goals are too general. They include terms such as “improving the quality of”, “improving the value of” and “ensuring care” which are not measurable. On the contrary, goals should describe the expected situation which expresses the drive to achieve a certain and lasting change [11]. Too broadly expressed purpose is not conducive to its implementation. In order to increase the likelihood of achieving results, the main goal should answer the question: what is the expected outcome? Detailed (intermediate) goals should describe the modification or change in selected problem areas, leading to the achievement of the main goal [16]. In the case of the GMHP, the goals should include phrases such as “increase in the level of awareness” or “increasing the availability of mental health care facilities” which allow outcome measurement and a precise evaluation.

It is necessary to demonstrate change over time because this allows to express in numbers the extent to which this change was achieved. It is easier to translate a goal
into actions and results if the goal is defined based on numbers. If it is not possible to match an appropriate measure/s to the goal, then it means that the goal was poorly formulated and does not meet the SMART criteria [17]. Most programs describe product and outcome measures and aim to assess them directly after implementing the intervention. Whereas measures of influence require a broad social context, advanced methodology and long-term follow-up, and should be assessed even several years after program completion. The analyzed document includes product and outcome measures, however, it lacks information on how the qualitative outcomes will be measured. One of the commonly used methods of qualitative assessment are surveys. Other methods include brief interviews (before, during and after intervention) and assessing how many participants (e.g., a percentage) are satisfied with their situation or feel that they gained new skills [18].

Psychological tests are most useful in assessing the participants’ mental health, making it possible to determine change (e.g., improved mood). Qualitative methods of collecting data serve to obtain information on the extent of the analyzed phenomenon and about the correlations between the data. Well-designed programs describe the desired level of a given measure [19]. In other words – in addition to the description of the goal, actions, results of these actions and the way to measure them, it is important to plan the level of the indicator that is going to be achieved (e.g., 10% improvement in satisfaction with the availability of care).

Programs implemented in developed countries often include new technologies in order to maintain contact with the participants/beneficiaries and to collect written data. The authors of the programs invite participants to log into the portal, where information about the program is available, as well as short surveys that can be filled anywhere and anytime [20]. Telephone applications which can serve as educational as well as evaluation function are also created [21].

It is a reasonable expectation that a multi-year continuation of a previous program designed by a large city such as Gdansk should include measures of influence. Using such measures, it would have been possible to assess the health benefits of the GMHP using HTA recommendations – based on measuring “total points” that are clinically significant for the particular illness or disorder [22]. In the case of mental illness, it would have been reasonable to rely on the relevant parts of quality of life questionnaires such as SF-36 or data on suicide in the area and time frame of the program duration [23].

It is apparent that formulating goals, expected results and their indicators is the most challenging task and at that stage program authors require the most support [24]. The involvement to public health specialists in program design might help translate the language of actions into the language of results and make operationalization easier, thus increasing the likelihood of completing the intended interventions. Available literature highlights that lack of an evaluation strategy (e.g., failing to include it when designing the program) might be one of the reasons for the insufficient effectiveness of prevention programs [25].
The scope of our analysis covers only the structure of the GMHP document and includes neither a merit-based assessment nor an analysis of compliance with the Polish legal acts. Due to the shortcomings of the GMHP listed in this article, it is not possible to assess the implementation as well as the effectiveness of this program. In accordance with the recommendations of mental health specialists [26], the GMHP covers prevention of mental illness and promotion of mental health. Both of these issues are difficult to measure. According to public health specialists, the effectiveness of such health programs can be improved by greater involvement of the scientific community in designing and evaluating them [27].

Improving the quality of mental health interventions, including mental health promotion and illness prevention, has been among the WHO’s priorities for several years [28]. Standards set by international scientific institutions involved in addiction prevention are used in prevention of other risky behaviors and disorders. The WHO publishes the criteria of quality and seeks to standardize them around the world [29]. When designing local or national programs, these standards are worth relying on in order to use public funds as effectively as possible.

Conclusions

1. According to the guidelines of the Agency for Health Technology Assessment and Tariff System in Poland, the Gdansk Mental Health Program for the years 2016–2020 does not meet the main criteria of a properly-designed health care policy program.
2. A health care policy program that is not designed based on good principles is at risk of failing to achieve its goals.
3. Regulations containing detailed guidelines and procedures which will make local government agencies obliged to correctly formulate mental health program are needed. This could be achieved by applying to these programs the criteria and procedures for health policy programs as expressed in the Act of 27 August 2004 on health care benefits financed from public funds.
4. It is worthwhile to involve knowledgeable public health specialists in designing health policy programs, particularly when formulating goals, measures of effectiveness and methods of evaluation, both before and after the program is completed.
5. It is worthwhile to follow the World Health Organization recommendations and use the available literature on health care program assessment in countries with more experience in designing and implementing such programs.
References


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