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Analysis of Implementation of the Chronic Disease Management Program (PROLANIS) Diabetes Mellitus Type 2 (DMT2) during the Covid-19 Pandemic at the West Lombok District Health Center

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Abstract

The Chronic Disease Management Program (PROLANIS) is implemented by Health Social Security Administering Agency (BPJS Kesehatan) in an integrated manner involving participants, health facilities, and BPJS Kesehatan in order to maintain the health of participants with chronic diseases, especially Diabetes Militus Type 2 (DMT2). It is aimed at sufferers to achieve a better quality of life. The cost of effective and efficient health services is an important factor, because it is one of the performance-based capitation indicators in Community Health Centers (Puskesmas). Based on data from the West Lombok Health Office, West Nusa Tenggara province - Indonesia, from the top 10 most diseases, diabetes mellitus ranks 8 (eight), where in 2019 there were 8.882 cases, while in 2020 there were 9.683. The purpose of this study is to analyze the input, process and output factors of the PROLANIS program at the Puskesmas. This study is a descriptive study with qualitative and quantitative approaches, where primary data was obtained from in-depth interviews and secondary data from the *Pcare* Puskesmas application. The results showed that the input of PROLANIS registered participants was still very low (about 14% of the total number of participants diagnosed with DM), the process indicator of the number of PROLANIS participants who visited the puskesmas was quite high (82%), and the output indicator showed the number or ratio of participants whose blood sugar was controlled, is still very low (26%). Finally, in general, our findings are that the implementation of PROLANIS at the West Lombok District Health Center during the Covid-19 Pandemic is still not optimal in terms of input, process, and output.

Keywords: Chronic Disease Management Program, BPJS Kesehatan, Diabetes Militus Type 2, Covid-19

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INTRODUCTION

Diabetes mellitus type 2 (DMT2) is a chronic disease that is a very serious health problem globally. Diabetes attacked 422 million people in 2014, based on a report by the World Health Organization (WHO), this number has quadrupled since 1980 with 108 million sufferers (World Health Organization, 2020). Patients with DMT2 in Indonesia in 2013 reached 8.5 million people and were included in the top 10 countries with high diabetes rates with an age range of 20-79 years (World Health Organization, 2016). This case is predicted to reach 14.1 million people in 2035 (Forouhi & Wareham, 2014). However, it turned out to be progressing faster than predicted. The prevalence of diabetes in Indonesia in 2016 has actually reached 18 million people with a risk factor of being physically inactive by 22.8% (Brahmantya et al., 2021). Specifically in West Lombok Regency - West Nusa Tenggara province, in the 2019 period the estimated number of people who had been diagnosed with diabetes was 9.828 people (ranking 8th out of the 10 biggest diseases in 2019), this is based on the Disease Profile Report of the West Lombok District Health Office.

In the management of DMT2, the function of primary health facilities needs to be optimized because it is considered very vital (American Diabetes Association, 2019). However, in lower-middle income countries, including Indonesia, there are still many problems related to the management of DMT2. Some of the barriers to managing DMT2 in Indonesia include; availability of antidiabetic drugs in primary and secondary health services, lack of access to health services, and including the quality of health workers in disease management and prevention (Soewondo et al., 2013). Previous studies have emphasized the importance of a structured program in the management of DMT2 (Nissinen et al., 2001). In addition, there is a push to strengthen the health system to address DMT2 as a clinical entity through primary health services (Alkaff et al., 2021). It is undeniable that chronic disease impacts economically and clinically as it imposes a substantial health care burden (Liu et al., 2020). If this is charged to the patient, it is certain that chronic diseases such as DMT2 in Indonesia will not be handled properly. Therefore, it is necessary to have a program from the government specifically for handling chronic diseases.

In the context of health care in Indonesia, an effort is needed to keep participants healthy, and participants who are sick do not get sicker through promotive and preventive programs. This is in line with the mandate of the Indonesian government in order to improve public health status and the success of the social security program in the health sector or the National Health Insurance (JKN). The benefits obtained by JKN participants are promotive and preventive health services, one of which is through the Chronic Disease Management Program (PROLANIS).

PROLANIS is a health service with a proactive approach that is carried out in an integrated manner by involving participants, health facilities, and BPJS Kesehatan, in the context of maintaining the health of participants with chronic diseases to achieve optimal quality of life with cost-effective and efficient health services (BPJS Kesehatan, 2019). The aim of PROLANIS is to encourage participants with chronic diseases to achieve optimal quality of life. The target of PROLANIS participants is all BPJS Kesehatan participants with chronic diseases, one of which is diabetes mellitus type 2 (DMT2). The benefits received by PROLANIS participants are health consultations and health checks, drug services, supporting examinations, group education and health exercises. PROLANIS activities are one of the indicators in performance-based capitation payments with a controlled PROLANIS participant ratio target indicator of > 5%. The formula for calculating the ratio of PROLANIS participants with controlled diabetes mellitus (DM) is a comparison between the number of DM patients who have their blood sugar under control compared to the number of participants registered in the FKTP who are diagnosed with DM (multiplied by one hundred percent) (BPJS Kesehatan, 2019). The form of PROLANIS implementation consists of 5 (five) activities, namely; monthly health consultations, monthly drug services, supporting examinations consisting of monthly fasting blood sugar checks, HBA1C examinations every 6 (six) months, blood chemistry examinations once a year, and group activities (health education and PROLANIS gymnastics).

In the implementation of PROLANIS, it is necessary to evaluate the achievements of its implementation in order to provide optimal benefits to program participants. The implementation achievements are evaluated on the aspects of input, process and output. Based on the study by Wardani et al. (2020) it was found that from the input aspect, the availability of human resources, facilities and infrastructure were not sufficient, the budget was not running smoothly and SOPs had not been recorded. In the aspect of the process, it has been carried out well, except that the home visit has not been carried out. In the output aspect, the visiting ratio of PROLANIS participants is still below 50% and the lack of controlled PROLANIS DM participants. This is certainly not the ideal condition expected with the PROLANIS program. The implementation of this program starts from the level of the community health center (Puskesmas) at the district or city level. The success of the program is evaluated from the achievements of its implementation at the Puskesmas level.

Currently, the world is being hit by a disease caused by the SARS-CoV2 virus, also known as COVID-19. In the elderly and have a history of chronic disease can lead to the emergence of worse complications. A person with uncontrolled blood glucose levels will make the prognosis of COVID-19 worse and cause death. On the one hand, this is a challenge so that PROLANIS can continue to be implemented in the midst of a pandemic. Therefore, it is important to conduct a study to determine the achievement of PROLANIS implementation at the West Lombok district health center during the COVID-19 pandemic, by analyzing the success of PROLANIS from the input, process, and output aspects.

METHOD

This study is descriptive research with a qualitative and quantitative approach by analyzing the success of PROLANIS from the aspects of input, process, and output. Qualitative method by conducting in-depth interviews with informants, and this is primary data. While the quantitative method with secondary data collection from the Pcare application at the Puskesmas. Data collection from the Pcare application was carried out at the West Lombok district health center during the COVID-19 pandemic.

In accordance with the purpose of this study, the authors conducted an analysis on the aspects of input indicators (number of registered PROLANIS participants), process indicators (number of participants who visited PROLANIS activities), and output indicators (ratio of the number of PROLANIS participants whose blood sugar levels were controlled). For output indicators, researchers conducted in-depth interviews with 5 (five) informants who represented their respective competencies and were considered representative of the problem object in the study. The characteristics of the informants are presented in Table 1.

Table 1. Characteristics of informants

Informants' codes	Gender	Age	Last education	Position
1	Female	52	S1 Dokter gigi	Head of Health Center
2	Male	47	S1 Dokter Umum	PROLANIS Manager
3	Female	36	SKM	PROLANIS Officer
4	Male	59	SI	PROLANIS Participant
5	Female	63	SI	PROLANIS Participant

RESULTS AND DISCUSSION

Input Indicator

The input indicator in question is the number of registered PROLANIS participants. Registration of PROLANIS participants is carried out by the FKTP for participants diagnosed with DMT2 by entering data into the BPJS application, which had previously been done with the participant's approval. The results of the data recapitulation for the 2021 period are as presented in Figure 1.

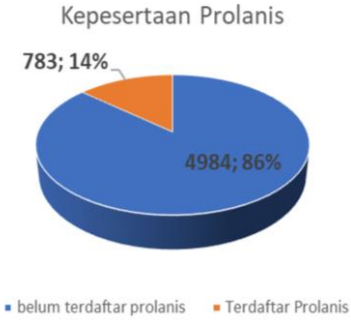

Figure 1. Data on participants diagnosed with DMT2 who are registered as PROLANIS participants

Figure 1 shows that the registered PROLANIS participants are still very low (14%) from the target of 55%. On this condition, the researcher conducted an analysis in terms of factors that influence the input aspect, including human resources, facilities and

infrastructure, and SOPs, by conducting interviews with informants. The results of the interviews revealed that almost all informants who were directly related to the PROLANIS program stated that the availability of human resources related to the PROLANIS program was felt to be sufficient although sometimes the health workers on duty were still lacking, such as the following interview excerpt.

> ……. *Yang hadir itu ada petugas Prolanis/PIC Prolanis, ada dokter, dan kadang-kadang saya juga hadir kalau tidak ada kesibukan, ikut-ikut lah.. hehehe.. kebetulan ketemu teman-teman saya juga yang prolanis. Namun sekarang kegiatan senam dan edukasi kelompok kami vakum dulu pak karena Covid, pada takut.* (Informan 2)

> ……. *Iya, kadang-kadang kita berbagi tugas, karena beberapa teman bantu di vaksinasi.* (Informan 3)

The answers of the two informants above are strengthened by answers from key informants, as follows.

> ……. *Cukup pak.* (Informan 1)

Based on the results of the interviews, it can be seen that health workers are always present in PROLANIS activities, but during the pandemic PROLANIS activities, both education and gymnastics, are not carried out.

The next is related to the SOP set by the puskesmas regarding the management of PROLANIS, it was conveyed that there was no SOP made by the puskesmas, and so far using the PROLANIS guidelines from BPJS Kesehatan. Based on the results of interviews with informants that the puskesmas in carrying out PROLANIS activities use guidelines from BPJS Kesehatan, this can be seen from the results of interviews with key informants, along with the results of the interviews.

> ……. *hmmmm, kami tidak membuat SOP khusus untuk program prolanis pak, kami memakai pedoman yang ada di buku panduan BPJS, yang saya tau mungkin semua puskemas kabupaten Lombok barat ga buat SOP khusus prolanis pak.* (Informan 1,2,3)

Furthermore, related to the registration of PROLANIS participants, it was also found that the puskesmas did not consistently register participants diagnosed with DMT2 to the PROLANIS membership, because the puskesmas had difficulty controlling the health status of participants, as excerpts from the following interview.

> ……. *hehehe…iya pak, sebenarnya kami melihat kemampuan puskesmas, kalau pesertanya banyak tenaga kami tidak cukup untuk melakukan kegiatan prolanis, dan juga kami akan merasa kesulitan untuk mengontrol status kesehatannya nanti, kami juga akan kesulitan untuk melakukan koodinasi ke peserta untuk hadir, karana faktor trasportasi, dan domisili peserta yang jauh-jauh.* (Informan 1)

> ……. *nah itu dia pak, pendaftaran peserta prolanis dipuskemas kami memang kecil pak, saya juga ga tau bagaimana prosesnya, kadang kami minta bantuan dari BPJSnya untuk daftarin, mungkin karena peserta prolanis kami kebanyakan sudah pada umur lansia."* (Informan 2,3)

From the results of the interview, it can be stated that the puskesmas is not optimal in conducting the selection of participants to become PROLANIS participants due to insufficient staff to carry out PROLANIS activities, and also due to transportation considerations, participants' domicile and puskesmas have difficulty controlling their health status.

Process Indicator

The process indicator is the number of PROLANIS participants visiting and participating in PROLANIS activities carried out by the puskesmas. The process indicators analyzed in PROLANIS activities carried out by the puskesmas are health consultations, drug services, supporting examinations, education and PROLANIS gymnastics. Data on the achievements of PROLANIS participants who visited the puskesmas can be seen in Figure 2.

Figure 2. Data recap on the number of visits by PROLANIS participants to the Puskesmas

Figure 2 shows that the visit of PROLANIS participants to the puskesmas is quite high (82%), but still below the target of 95%. Based on interviews with informants, information was obtained that, of the 5 activities carried out in PROLANIS activities, only 3 activities could be carried out, namely consultation Health, supporting examinations and drug services, while gymnastics and group education activities cannot be carried out, the visits of PROLANIS participants to the puskesmas are not in the context of PROLANIS activities, but visits for routine control and taking drugs.

> ……. *wabah pak, kita ga lakukan, namun kadang pada saat peserta datang ke puskesmas untuk konsultasi kami berikan sekalian dengan resep obat rutinnya.* (Informan 2)

> ……. *iya pak, lumayan yang berkunjung pak dari peserta kami yang berjumlah…hampir % yang berkunjung ke puskesmas, namun hanya utk mengambil obat rutin saja, karena wabah kadang kami berikan untuk 2 bulan pak sesuai informasi yang disampikan BPJS.* (Informan 3)

> ……. *hehehe susah pak, kalau online banyak dari peserta kami yang ga punya HP, kalaupun punya mereka ga paham pak.* (Informan 3)

Furthermore, the authors conducted interviews with key informants.

> ……. *ga pak masih wabah, disampikan juga "takut kena pak, ini anak yang ambil obatnya ke puskesmas, untuk 2 bulan mendatang.* (Informan 5)

Outcome Indicator

Outcome indicators are indicators of the number of PROLANIS participants whose blood sugar levels are controlled. The following is a recapitulation of the average achievements of PROLANIS participants in controlling their blood sugar levels after participating in PROLANIS activities by FKTP.

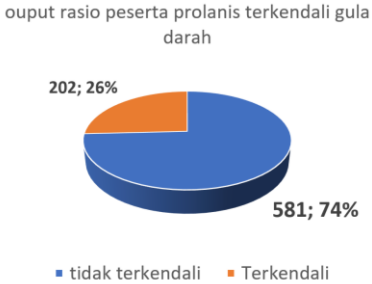

Figure 3. The achievement of participants' blood sugar levels after participating in PROLANIS

Figure 3 shows that the controlled blood sugar level of PROLANIS participants was 26%, still very low from the target of 55%. Based on the results of interviews with informants, it is known that during the Covid-19 pandemic, 3 (three) of the 5 (five) PROLANIS activities in the form of health consultations, gymnastics, and PROLANIS education could not be carried out, such as interview excerpts.

> ……. *namun sekarang kegiatan senam dan edukasi kelompok kami vakum dulu pak karena covid, pada takut* (Informan 1).
>
> ……. *covid pak, jumlah kunjungan turun drastis* (Informan 2).
>
> ……. *takut pak ada wabah* (Informan 3)

Returning to the input results, from the results of in-depth interviews with informants, the input factors that caused the low PROLANIS participation in the puskesmas were influenced by the limited number of PROLANIS management officers, the domicile of the PROLANIS participants who were far away, the transportation of participants, and the puskesmas had difficulty controlling if there were many participants. In line with research that has been done previously (Meiriana et al., 2019), stated that the Puskesmas limited PROLANIS participation due to doubts in controlling for routine visits every month. A similar statement was also conveyed by Manullang et al. (2021), that the SOP in the implementation of PROLANIS is not yet available, so it is concluded that the implementation of PROLANIS has not been carried out optimally.

A process is a collection of parts or elements contained in a system that functions to convert inputs into planned outputs (Borek et al., 2019). In the process indicators in the PROLANIS implementation, the measurement is the number of participants who come to visit the Puskesmas for PROLANIS activities. Based on in-depth interviews with informants, it is known that PROLANIS activities did not run optimally during the Covid-19 pandemic outbreak, only 3 (three) of the 5 (five) PROLANIS activities were carried out by the puskesmas. It was stated that the average number of PROLANIS participants who visited the puskesmas was 82% of the total PROLANIS membership, the level of activeness of participants visiting the puskesmas was quite high, even in the conditions of the Covid-19 pandemic. However, the visits of PROLANIS participants were only to control their blood sugar levels as well as to take routine blood sugar prescriptions. Based on previous research (Ancong, 2021), that there are still puskesmas that have not carried out several activities such as education/club activities, now is the time to increase the awareness of Puskesmas staff, knowledge and skills, to properly implement the PROLANIS program during the Covid-19 pandemic.

Output is a collection of parts or elements resulting from ongoing processes in the system. The output in this study is the level of success of the PROLANIS program implementation at the West Lombok District Health Center. The results of interviews with informants as a whole stated that the achievement of PROLANIS participants who controlled blood sugar was still very low (26%) because PROLANIS activities were not optimally carried out, where group education and PROLANIS exercise during the covid 19 pandemic could not be carried out. The results of the study by Kristianto et al. (2021) show that there is a relationship between patient participation in the PROLANIS program and medication adherence so that it has an impact on controlling blood sugar levels. History was also conveyed by Watuseke et al. (2017) that there was an effect of PROLANIS exercise on decreasing blood sugar levels in DMT2 patients. The same thing was conveyed by Nurdianto et al. (2021) that the provision of education on healthy lifestyles during the Covid-19 pandemic has proven to be effective and has a significant effect starting from changes in healthy lifestyles and decreasing blood glucose levels.

Referring to the results of the study that the visit rate of PROLANIS participants was quite high at 82%, but the controlled blood sugar level was still very low at 26% and this had

not yet reached the target of 70%. This condition is caused by the behavioral factors of PROLANIS participants in maintaining health, for example a balanced diet, regular exercise, and being obedient to taking medication.

CONCLUSION

All health centers in West Lombok district do not yet have a team of implementing officers for the PROLANIS program, and the numbers are still lacking. The findings of the study highlight the lack of participants diagnosed with DM who were successfully recruited by the Puskesmas to be registered as PROLANIS participants, this is of course still lacking. PROLANIS education and gymnastics during the 2021 period could not be carried out by the Puskesmas due to the Covid-19 Pandemic. The number of participants whose blood sugar levels are controlled is still very low, because PROLANIS activities have not been optimally carried out, especially group education and PROLANIS exercise and participants' compliance with maintaining health and taking medication.

RECOMMENDATION

Based on the results of the study, we suggest the importance of intensive socialization by BPJS Kesehatan to the Puskesmas regarding the PROLANIS program, especially the participant registration mechanism.

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