

## EMPOWERMENT OF PERSONS WITH DISABILITIES AFFECTED BY COVID-19 THROUGH ASSISTANCE IN REPAIRING DISABILITY MOTORCYCLES

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**Abstract.** People with disabilities are numerous, reaching 15% of the Indonesian population. Some are independent and make a living by trading around using special motorcycles (disabled motorcycles) as done by members of the Independent Disability Shelter House (Rumsidisma), Rawa Lumbu, Bekasi, West Java. They can not make a living because the motorbike is damaged while they do not have repair funds. This hampered income, and this problem further disrupted their lives during the Covid-19 pandemic. Therefore, it is necessary to carry out community service activities (PKM) to provide funds for repairing disability motorcycles. This activity aims to help people with disabilities in Rumsidisma to be able to earn a living and be independent as before. The method of implementing PKM includes the stages of preparation, implementation, and evaluation. Implementation activities include providing funds and repairing disability motorcycles. Evaluation is carried out through interviews and filling out evaluation forms. All activity processes are carried out by implementing health protocols. PKM activities can repair three disabled motorcycles. Member of Rumsdisma. Can return to making a living and be as independent as before. RecipientsRecemibly of assistance were satisfied and agreed that this activity was continued. There were no reports that PKM implementers and beneficiaries were infected with Covid-19. The conclusion is that repairing of the disability motorcycles of Rumsidisma members during the pandemic has been successfully carried out safely and can empower members as before.

**Keywords:** disability, disability motorbike, community service

**Abstrak.** Penyandang disabilitas sangat banyak jumlahnya mencapai 15 % dari penduduk Indonesia. Sebagian diantara mereka mandiri dan mencari nafkah dengan berdagang keliling menggunakan sepeda motor khusus (motor disabilitas). Seperti yang dilakukan anggota Rumah Singgah Disabilitas Mandiri (Rumsidisma), Rawa Lumbu, Bekasi, Jawa Barat. Saat ini mereka tidak dapat mencari nafkah karena motornya rusak sedangkan mereka tidak mempunyai dana perbaikan. Hal ini menghambat pendapatan dan masalah ini semakin mengganggu kehidupan mereka di masa pandemi *Covid-19*. Oleh karenanya perlu dilakukan kegiatan pengabdian masyarakat (PKM) berupa pemberian dana perbaikan motor disabilitas. Kegiatan ini bertujuan membantu penyandang disabilitas Rumsidisma agar dapat mencari nafkah dan mandiri seperti sebelumnya. Metode pelaksanaan PKM meliputi tahap persiapan, pelaksanaan dan evaluasi. Kegiatan pelaksanaan meliputi pemberian dana dan perbaikan motor disabilitas. Evaluasi dilakukan melalui wawancara dan pengisian borang evaluasi. Semua proses kegiatan dilakukan dengan menerapkan protokol kesehatan. Kegiatan PKM dapat memperbaiki tiga motor disabilitas. Anggota Rumsidisma. Dapat kembali mencari nafkah dan mandiri seperti sediakala. Penerima bantuan merasa puas dan setuju kegiatan ini dilanjutkan. Pasca kegiatan tidak ada laporan bahwa pelaksana PKM dan penerima bantuan terinfeksi Covid-19. Kesimpulannya adalah perbaikan motor disabilitas anggota Rumsidisma di masa pandemi berhasil dilakukan dengan aman dan dapat memberdayakan anggota seperti sediakala.

**Kata Kunci :** disabilitas, motor disabilitas, pengabdian masyarakat

## Introduction

Not all Indonesian citizens have body perfection, some of whom have disabilities. These disabilities can be in the form of physical, intellectual, mental, and sensory limitations (Law of the Republic of Indonesia Number 8 of 2016 concerning Persons with Disabilities, 2016). The number of persons with disabilities in a country according to the World Health Organization (WHO) is around 15% (Syafi, 2014). If we refer to data from the Ministry of Home Affairs of Indonesian Republic which states that Indonesia's population currently amounts to 273,879,750 people, it is estimated that the number of people with disabilities currently amounts to 41,081,962 people. The results of Rikesdas 2018 show a high incidence of disability in the Indonesian population, which is around 3% in the age group of 5-17 years, 22% in 18-59 years and 26% in the elderly. A very large number for the Indonesian state (Ndaumanu, 2020). Many people with disabilities experience obstacles and difficulties in navigating their lives.

Law Number 8 of 2016 mandates the central and local governments to respect, protect, fulfill life, provide access to life and empower people with disabilities. Persons with disabilities have the same rights as other citizens in all aspects of life including access to mobilization, and independence. But reality is not yet like the mandate of the law. Most people with disabilities in Indonesia live in vulnerable, backward, and poor conditions even though the state guarantees the survival of persons with disabilities (Ndaumanu, 2020).

People with disabilities should receive special attention because they belong to a vulnerable group; the largest number of minority groups in Indonesia (Ndaumanu, 2020). Especially during the Covid-19 pandemic as it is today. The pandemic made them sick so that their lives were even worse. They generally worked as masseurs, or merchants. The pandemic situation hampered their activities and thus disrupted their income. People with disabilities need helping to be independent, especially in making a living (Aulia et al., 2021). The government is trying to make this happen but this will not work without the help of the community (Trimaya, 2016). People with disabilities are the community most affected by the COVID-19 pandemic. The difficulties of life that they have experienced so far, have increased again during the pandemic. The government needs to embrace all organizations to collaborate and work together to empower people with disabilities so that they can survive and get through the pandemic well (Luthfia, 2020).

The situation of the above problems is also experienced by people with disabilities at the House of Shelter for Disabilities (Rumsidisma) in the Rawa Lumbu area, Bekasi, West Java. Rumsidisma is precisely located at RT 01 RW 02 Number 37 Bojong Menteng Village, Rawa Lumbu District, Bekasi City, West Java.





Gambar 1: Location of Rumsidisma: Bojong Menteng, Rawa Lumbu, Bekasi Jawa Barat  
Cited from: <https://bit.ly/secretariatofrumsidisma>

This rumsidisma has legal entity legality in the form of a legal permit for the establishment of a Foundation with the number AHU-0024383AH.01.04 of 2020 and registration of the Foundation with the number 5020120732100760. This halfway house was founded by madam Paini in 2007 and is still running today. Madam Paini is a women with a disability who often experiences discrimination in society. This experience motivated him to build a halfway house as a place for people with disabilities. A forum that can empower all potential people with disabilities into useful actions and activities. Another goal is to change people's mindset so as not to perceive disability as a scourge. Rumsidisma has the mottoes "DON'T COUNT WHAT'S MISSING FROM YOUR BODY, USE WHAT'S STILL THERE" and "WE CAN AND WE CAN AFFORD WITH THE LIMITATIONS WE HAVE". This motto is a source of inspiration and hope for people with disabilities to live independently.

Since its establishment until now Rumsidisma has fostered 100 people with disabilities so that they can live independently. Currently, this independent shelter accommodates 25 people with disabilities and 15 companions. The activities carried out include making ready-to-eat local culinary such as pecel rice, tiwul rice, corn rice and Palembang pempek. They also produce snacks such as benguk tempeh, arrowroot chips, corn chips, and gadung cassava. In addition to food, people with disabilities also sew, both independently and work in convection companies. Some members work as masseurs and trade small meals using special means of motorcycle transportation. At the time of the preliminary visit, people with disabilities were found to be healthy but unable to trade. This is because their disabled vehicles (motorcycles) are damaged. This problem can be solved by providing motor repair funds so that they can trade around again to make a living.

In view of the foregoing, the author carries out community service activities to answer the problems mentioned above. This activity aims to help people with disabilities in Rumsidisma to be able to earn a living and be independent as before.

## Methods

The implementation of this community service activity is carried out in three stages starting from preparation, implementation and evaluation. All these processes are carried out by following the provisions of health protocols during the Covid-19 pandemic.

1. Survey, identification of problems and solutions
2. Assistance for disability motorcycle repair funds
3. Disability motorcycle repair
4. Evaluation of activities

## Result and Discussion

### Result

Community service activities are carried out from April to June 2022 at the Independent Disability Shelter House (Rumsidisma), Bojong Menteng, Rawa Lumbu, Bekasi, West Java. Rumsidisma is on land owned by Madam Paini, covering an area of 250 m<sup>2</sup> with a building area of 215 m<sup>2</sup>. The house building has 5 bedrooms, 3 bathrooms, a living room, and a kitchen. In the house, there are 15 managers and 25 people with disabilities.

#### *Characteristics of persons with disabilities members of Rumsidisma*

Rumsidisma are inhabited by 44 people, namely 29 people with disabilities and 15 companions. Most of the residents are between 18 – 59 years old but there are also those aged 17 – 59 years old and the elderly. People with disabilities Rumsidisma have a variety of disabilities, namely physical, mental, intellectual and sensory disabilities. Not all residents are healthy but some residents suffer from illness. Not all residents work some residents do not work. More details can be seen in Table 1 below.

Table 1. Characteristics of persons with disabilities members of Rumsidisma

Characteristics	Amount
<b>Type of Residential</b>	
• Companion	15
• Persons with disabilities	29
<b>Age</b>	
• 5 – 17 years	3
• 18 – 59 years	25
• > 60 years	1
<b>Type of Disability</b>	
• Physical Disability	20
• Mental Disability	4
• Intellectual Disability	2
• Sensory Disability	3
<b>Health Status</b>	
• Healthy	16
• Sick	13
<b>Type of Work</b>	15



• Does not work	1
• Masseur	3
• Traveling merchant with disabled motorbikes	8
• Food / culinary maker	2
• Seamstress	15
• Other jobs	

### *Problems of people with disabilities Rumsidisma*

One of the problems that concerns the author is the problem of motorcycle damage of Rumsidisma members. The damage to the motorbike prevented them from making a living, thus reducing their income. There were three members of the Rumsidisma who had their motors and their motors were damaged (Table 2). The damage has been going on for a long time. The motorbike suffered damage to the engine and body so that it could not be used for activities to make a living (Figure 2). The owners of such motors are trying to repair damaged engine parts (carburetors, fuse rings, CVT, Spul, shockbreakers, brake pads, oil, spark plugs and motor chains. But those efforts didn't work out well while they had run out of repair funds. As a result, they have difficulty making a living so they have no daily income.

Table 2. Anggota Rumsidisma yang mempunyai masalah dengan motornya

No	Name	Age (Year)	Type of work	Motor type and production year	Damage	Damage duration (month)
1	Tn. Ismail	53	Traveling merchant	Yamaha, 2011	Machine	10
2	Tn. Rudianto	42	Traveling merchant	Yamaha, 2007	Machine	11
3	Tn. M. Arif	22	Traveling merchant	Honda, 2009	Body	12

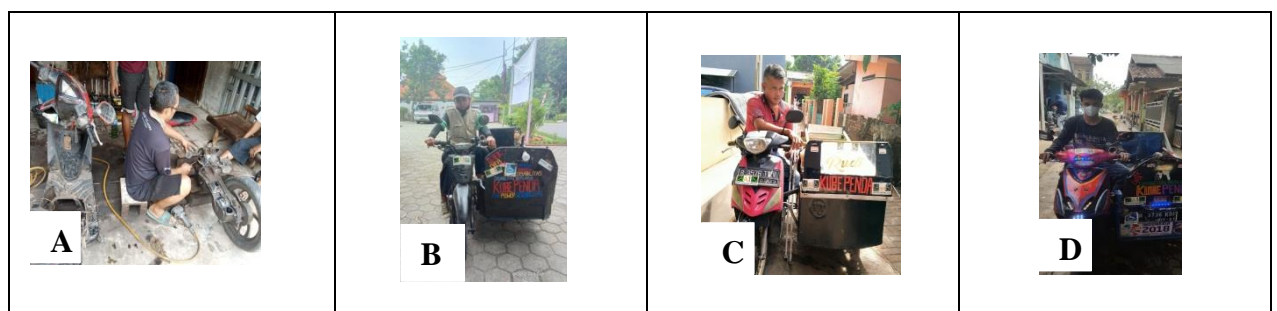


Figure 2 : A. Motorcycle repair, B - D. Disability motorbikes function normally

### *Problem Solution*

Based on their problem, the abdimas team was moved to overcome the solution by providing financial assistance for the cost of repairing the motorbike. The funds were used by them for complete repairs to the three motorcycles so that the motorcycles could function again normally as before. So that it helps them in their daily activities to make a living.



### Evaluation of Activities

Participants provide a satisfied response to activities both from the aspects of committee performance, implementation, and the implementation process (Table 3). All participants give consent if this activity is repeated on future occasions and recommend to others to participate in the activity. (Table 4)

Tabel 3 . Evaluasi Peserta Terhadap Kegiatan PKM

Aspek Evaluasi	Tidak Puas	Kurang Puas	Cukup	Puas	Sangat Puas	Total
Performance				√		
Implementation				√		
Process				√		
<b>Total</b>						

Tabel 4 . Persetujuan dan Rekomendasi Kegiatan PKM Berikutnya

Pertanyaan	Setuju	Tidak Setuju
Kelanjutan Kegiatan	√	
Rekomendasi ke Orang Lain	√	

### Discussion

PKM activities were successfully carried out as a result of partnerships with various parties. Community service activities really need collaboration with various parties (Supartono et al., 2021). Although the Covid-19 pandemic poses a risk of morbidity and mortality (Kovoor et al., 2020), activities can run safely because the PKM implementation team implements health protocols in the entire series of activities. The implementation of health protocols since the preparation, implementation and evaluation period helps prevent the transmission of the corona virus (Basuki Supartono, 2022). Until a month after the activity, there were no reports of participants and committees being infected with covid-19. People with disabilities like the community in general also use motorbikes to help their activities. Motorcycles with disabilities must be modified so that they can be ridden safely and comfortably. The modification must also take into account the stability factor (Wahyu Firmansyah et al., 2020).

Rijen Panji wrote various modifications of motorcycles with disabilities including three-wheeled motorcycles, motorcycles with sidecars, motorcycles with handlebars on the sidecar, motorcycles with sidecars with wheels moved forward (Rizen Panji 2019, n.d.).

### Three-wheeled motorcycles

Three-wheeled motorcycles are the result of modifications of ordinary motorcycles (matik or duck) that is to change the rear wheels by providing drive applications in the form of long axle iron so as to allow the installation of two wheels on the right side and the left side. This modification can be done in an ordinary motor repair shop at a cost of about 6 million rupiah. The motor is suitable for smooth paved roads. The weakness is that if this bike runs fast and turns the rear wheels lifted, this can be overcome by providing additional tools in the middle of the rear axle. Sepeda motor roda tiga

### *Motorcycle with a sidecar*

This motorcycle is the result of a modification of an ordinary motorcycle that is given an additional sidecar (additional tub) on the side of the motorcycle. This motorcycle is versatile because the additional tub can be filled with difable passengers with wheels or goods. This modification can be done in a motor repair shop at a cost of around Rp. 5 million rupiah.

### *Motorcycles with handlebars on the sidecar*

This type of motor is like a sidecar motor but there is an addition of motor handlebars on the sidecar. This model allows people with disabilities in wheelchairs to ride motorcycles safely and comfortably. When necessary to increase comfort can be provided stabilization tools such as long tierod, link arm and link stabilizer. The cost of this modification reaches 7 million rupiah according to its complexity.

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### *Motorcycles with a sidecar with the wheels moved forward*

This type of modification is similar to the above modification but at the front of the sidecar is paired the handlebars and the front wheel of the motorcycle is moved to the sidecar. Modifications of this type are more difficult and cost quite expensive.

### *Other modifications*

Disabled motorcycles can be beautified by providing variations of modifications such as the use of wide rims on motorcycles with disabilities, painting the color of the fenders with the body, installation of wheelchair mounts (brackets) and additional seat backs.

### *Future disabled motors*

The future disabled motors are designed by Tom Hylton, which is an electric Honda motorcycle. The motor has modular robot hands and feet and self-balancing technology so that the motor can stand upright without assistance. Another advantage is that it has a high level of stability. The bike has no handlebars; the role of the handlebar is replaced by the robotic hand connected to the drive system. So that once the rider is connected to the motorbike through the hands of the motorbike, there is communication and exchange of information between the rider and the motorcycle. The hands of the motor can be adjusted according to the needs of the rider. The motorcycle seat is positioned far back to make it comfortable for the rider to be comfortable if you want to race (Pratama, 2020). More details can be seen in figure 3 below.



Gambar 3: A) sepeda motor roda tiga, B) sepeda motor dengan sespan, C) sepeda motor dengan setang di sespan, D) sepeda motor dengan sespan dengan roda dipindah ke depan, E) Modifikasi lain, F) sepeda motor masa depan.

Cited from: (Pratama, 2020; Rizen Panji 2019, n.d.)

Modification of sidecar motors is widely preferred by people with disabilities such as those of disabled members of the rumsidisma. The motorbike is easy to use, comfortable and suitable for the activities of people with disabilities. The disabled members of the rumsidisma use it to trade around. The motor was bought ten years ago and is now in a broken condition. They didn't take him to the fray because of the lack of funds. through PKM activities, the author provided assistance funds to Rumsidisma to help the difficulties experienced. The PKM funding assistance was used by members with disabilities to repair the motorcycle. The motor is repaired by the mechanics well so that it can function like its seblum. They are very happy that they can now trade around again.

Rumsidisma is an important partner of people with disabilities because he has experience managing the needs of people with disabilities. However, rumsidisma is still in dire need of support for operational and other costs. The lack of these costs makes the activities of people with disabilities hampered. The pandemic situation adds to the severity of the problem. Thus this PKM activity really helps reduce their problems. So that they can be independent again as before the pandemic.

The results of this activity explain how important support is for people with disabilities, especially during a pandemic. However, the assistance must be considered properly so that they can independently live their lives. The beneficiaries were satisfied with the implementation of this community service activity. They agree that this activity is sustainable because there are still many people with disabilities who need a special motorcycle for their independence of life. They will recommend this activity to their peers.

## Conclusion

Community service activities during the Covid-19 pandemic for people with disabilities members of the Independent Disability Shelter House in Bojong Menteng village, Rawa Lumbu, Bekasi, West Java were successfully carried out safely by



implementing health protocols. The participants were satisfied and agreed that this activity was sustainable. We recommend that this activity be continued continuously to empower people with disabilities.

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