The Effectiveness of Duck Farming as A Psychosocial Recovery and Economic Empowerment of People with Schizophrenia (ODS) and Their Family

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Abstract: Schizophrenia is a psychotic disorder, one type of mental disorder that experiences distortions (deviations) of thought due to a chemical balance disorder in the brain that causes sufferers to experience disturbances in thinking, perception, time and speech orientation, feelings, and even behavior disorders. People who experience or suffer from it are called ODS (People with Schizophrenia). Their strange and deviant behavior even has some ODS who have violent behavior that endangers themselves and those around them, making the community afraid and not daring to take risks to employ them. When ODS conditions are unstable, their behavior causes them to be unable to work productively and concentrate, so their performance is low and not working. This condition makes it difficult for ODS to get a job. Pioneering and owning a duck farming business or operating in a duck farming business for business owners who understand the conditions of ODS is one of the alternative earning businesses that can be a source of income for ODS families and families. In addition, duck farming has a recreational element that can help the psychological recovery process for ODS. This study uses qualitative research methods. This study interviewed the market people of ODS, families, mental hospital staff, and business partners.

Keywords: Duck farming; psychosocial recovery; economic empowerment; people with schizophrenia.

1. Introduction

Mental disorders are physical diseases where the part that is attacked/disturbed is the chemical balance of the sufferer's brain (Richmond-Rakerd et al., 2021; Tegethoff et al., 2016). In a series of treatment processes, after an ODS consumes drugs prescribed by a psychiatrist, the individual will begin to stabilize his emotions and communicate realistically with those around him/her. The emotional stability of an ODS becomes important because, during illness, the patient loses self-confidence. Withdraw from social interactions with the environment and people around. They feel ashamed and afraid of being rejected because of the high stigma against ODG, who are often labeled/stigma as crazy people. The next step after an ODS stabilizes emotionally is psychosocial recovery efforts.
There are several types of mental disorders. Schizophrenia is one of the worst types of mental disorders – severe (Lavretsky, 2008), which can be compared to cancer. Like cancer, schizophrenic mental disorders also require regular treatment, and may even have to take medication for life. According to WHO, only about 1% of the world's population has schizophrenia. Schizophrenia cannot be cured but can be recovered and productive, where the brain function cannot be retrieved as before one hundred percent. The sufferer experiences psychological "paralysis," which in terms of the Ministry of Social Affairs is a mental disability. Patients experience a loss of the ability to think "normally" and lose orientation to time, space, and place. The patient is engrossed in his hallucinations.

![Schizophrenia Prevalence Data in 2021](image1.png)

In the field, most people who experience mental disorders, including schizophrenia, generally experience financial problems, either because of this disease or vice versa, because of family economic problems that trigger a person to experience mental illnesses. This schizophrenic disorder seizes the ability to think, psychological and social skills, and the ability to work. This condition makes it difficult for ODS to work "normally and stable" as before. A contentious view of schizophrenia is when people are viewed as 'sick' or 'healthy'. However, views have shifted to a spectrum of 'health' from acutely ill through various levels of functioning to 'well.' This means that people with schizophrenia can experience considerable disruption in their lives. Family and friends can also be significantly affected by seeing the effects of conditions and problems in supporting sufferers. This is a complicated problem for the family members, especially when they remember someone before they had schizophrenia. Although schizophrenia can be distressing and frightening, it does not mean that people with this disease cannot have a good quality of life and are likely to be employed. Like other people with long-term or recurring illnesses, people with schizophrenia can learn to re-manage the condition and move on with their lives.

![Schizophrenia Prevalence Data in 2021](image2.png)

The prevalence of Schizophrenia mental disorder according to place of residence in the picture above shows that people with Schizophrenia are in rural areas (7.0%) than in urban areas (6.4%). Recommendations for handling patients are not completed by providing psychological interventions but also integrated medically. Improving services in rehabilitating people with schizophrenia requires adequate facilities and infrastructure so that the rehabilitation process can be successful. There needs to be collaboration between local governments, communities and families to prevent and overcome people with schizophrenia so they don't experience stigma and discrimination and invite others to care.
Figure 3 captures schizophrenic patients who do duck farming. These schizophrenic sufferers should indeed be diverted their minds by working, it will not be easy, but gradually the sufferer can have a normal life like other people because the more he does not have work and routines that will still make the sufferer This mental disorder gets worse and will much more challenging to treat. Having a job can also make the sufferer more confident in his life. It will also be faster in the healing process, so this one method can also be easier to overcome the very effective symptoms. Fulfilling personal economic needs, especially for families, is not an option but an obligation to pursue after an ODS is stable and recovers. This family financial problem is often a factor that slows recovery and is even prone to triggering ODS recurrence. This condition prompted the authors to be interested in researching the effectiveness of duck farming as an alternative business expected to assist the psychosocial recovery process and economic empowerment of ODS and their families.

2. Literature Review

2.1. Schizophrenia (ODS)

Schizophrenia is the most easily recognized mental disorder (Chong et al., 2016; Lavretsky, 2008), so it is hoped that treatment can be carried out as early as possible to avoid this risk. Schizophrenia requires long-term management because it is a chronic (chronic) disorder (Bellack & Mueser, 1993). The more frequent relapses, the more severe the decline in function that occurs in People with Schizophrenia (ODS). Schizophrenia is included in psychotic disorders (Fagiolini & Goracci, 2009; Fusar-Poli et al., 2017). Schizophrenia is a chronic, severe, and disabling brain disease. Approximately 1 percent of the population experiences schizophrenia during their lifetime; more than 2 million Americans suffer from the disease in any given year. However, schizophrenia is experienced by men and women. Similarly, the disorder often appears earlier in men, usually in their late teens or early twenties, than in women, who are generally affected in their twenties to early thirties (Pletson, 2007; Schultz et al., 2007). Research has shown that lack of stimulation in the social environment of patients with chronic schizophrenia, has increased "negative" symptoms, especially social withdrawal, which affects the dullness and poverty of ideas. This situation is called social poverty. On the other hand, excessive social stimulation can act as a psychosocial stressor and may trigger recurrence (Rozanski et al., 1999).

2.2. Duck Farming

Kokoszynski et al. (2016) states that broiler ducks are raised primarily to produce meat. Generally, breeders keep local ducks that produce good meat. The ability of ducks is very varied for growth and egg production. Duck is a breed of duck that has high meat productivity. Ducks are waterfowl reared for their eggs which have general characteristics, slender bodies, walking horizontally, standing almost upright like a bottle and agile as the characteristics of laying birds (Holderread, 2011). Ducks are monogamous animals or live in pairs, usually raised for meat and eggs for human consumption (Mench, 2017). Local ducks found in Indonesia are generally laying ducks, experiencing sexual maturity at 20-22 weeks with a production time of about 15 months (Rukmiash, 2017). Traditional livestock systems in Indonesia, especially in Java,
are usually small-scale businesses regarding the number of livestock and business capital. The weakness that arises in small-scale businesses is the inability to utilize livestock resources efficiently. Developing poultry farming in Indonesia is relatively more advanced than other livestock businesses (Dewi et al., 2022). This is reflected in the enough contribution broadly in expanding employment opportunities, increasing people's incomes and especially in meeting the needs of high nutritional value foods (Wahyono & Utami, 2018).

2.3. Income

According to Gurley & Shaw (1955), income is an increase in economic benefits during an accounting period in the form of income or an increase in assets or a decrease in liabilities resulting in an increase in equity that does not come from the contribution of investors. According to Bosworth et al. (1999), income is an increase in economic benefits during the reporting period in the form of inflows or an increase in assets, or a decrease in liabilities resulting in an increase in equity that does not come from the investors' contribution. Income includes revenue and profit. Revenue is income that arises during the ordinary activities of the entity and is known by different names such as sales, fees, interest, dividends, royalties and rent (Rikayana, 2021).

3. Materials and Methods

This study uses phenomenological qualitative research methods (Sugiyono, 2017). Researchers are interested in examining the effectiveness of duck farming in a series of psychosocial recovery processes and economic empowerment of ODS and their families because of the difficulty and length of the ODS recovery process and the high recurrence rate of ODS. Findings in the field. Mental disorders, especially schizophrenia, are a contributor to poverty and other social problems. It is not only the sufferer who has problems, but also family members and the community around where they live, and even their safety and life are threatened if an ODS person does not recover and be productive. The researcher conducted an experiment by making a duck broiler business managed by several people with ODS with instructions, guidance and monitoring from several mental health workers as a team who wanted to test and create a finding of types of activities that were effective for the process of psychological recovery and empowerment and economic empowerment of ODS and family.

4. Results and Discussion

By raising livestock to maintain or breed animals, survivors Schizophrenia can benefit from selling points when they do work. Duck farming in this study is one type of incentive system farming that sells meat, from the results of raising ducks it can generate profits because now there are many restaurants, restaurants, and people who need duck meat for consumption and as an ingredient to be processed into a variety of foods. Program implementation Duck Farmer by People with Schizophrenia (ODS) in this activity was well received by People With Schizophrenia (ODS), characterized by the number of attendance and responses given during the implementation of activities. Efforts to raise ducks traditionally, which are still being carried out, have taken over in supporting the economy People with Schizophrenia (ODS). In fact, it is not uncommon for families to make their main livelihood just by raising ducks traditionally. From a socio-economic point of view, duck farming has been of great help to People With Schizophrenia (ODS). In addition to being able to create job opportunities for People With Schizophrenia (ODS) (Murtidjo, 1990). Capacity sometimes contains 3000 heads duck, from the age of 1 day duck and until it is ready for sale. Ducks can be sold around 2.5 months of age and sell around 30-60 ducks every day. The price of ducks is around Rp. 47,000 per head. If per month the business of raising ducks can sell 1000 ducks and sell them to collectors. The following People With Schizophrenia (ODS) who carry out the activities of duck meat breeders (see Figure 4):
On the basis of the results of the interview with Mr. Rudy, as the owner of a duck farm, was informed that at the beginning of its establishment, Mr. Rudy only kept 1000 ducks, but from the good results, many buyers bought meat products. From this, Mr. Rudy developed his duck farm even more and provided job opportunities for People with Schizophrenia (ODS). At first, Mr. Rudy had difficulty in hiring People with Schizophrenia (ODS), but over time employees People with Schizophrenia (ODS) can follow the directions given well, so that until now the employee is able to complete the job well without any problems being created. Until now, the number of ducks that Mr. Rudy has raised has reached thousands of ducks. From duck farming, Mr. Rudy also sells ready-to-eat ducks which are distributed to restaurants (see Figure 5).

Related to the problem of duck farming on empowerment People With Schizophrenia (ODS) also conduct interviews with employees People with Schizophrenia (ODS) who work on a duck farm. Based on the results of interviews with employees people with schizophrenia (ODS) whose house is far from the location of the duck farm obtained information that, at first, they were grateful to be able to work in this duck farm, where they get wages and receive a place to live in.

4.1. Duck Production Costs
Production costs in the duck farming business consist of fixed costs and variable costs. On the basis of the calculation, the total average production cost of each respondent is Rp. 1,699,308.84/month. Fixed costs incurred are Rp. 227,315.50 (13.38%) and variable costs incurred are Rp. 1,471,993.34 (86.62%).
### Table 1. Average Production Cost of Duck Farming

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Cost</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fixed cost</td>
<td>176,869.00</td>
<td>10.41</td>
</tr>
<tr>
<td></td>
<td>Livestock Depreciation</td>
<td>46,358.00</td>
<td>2.73</td>
</tr>
<tr>
<td></td>
<td>Cage Shrinking</td>
<td>4,088.00</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>Equipment Depreciation</td>
<td>227,315.00</td>
<td>13.38</td>
</tr>
<tr>
<td>2</td>
<td>Variable cost</td>
<td>1,219,895.00</td>
<td>71.79</td>
</tr>
<tr>
<td></td>
<td>Feed Cost</td>
<td>3,344.00</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>Drugs</td>
<td>9,933.00</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td>Transportation</td>
<td>10,777.00</td>
<td>0.63</td>
</tr>
<tr>
<td></td>
<td>Electricity</td>
<td>228,042.00</td>
<td>13.42</td>
</tr>
<tr>
<td></td>
<td>Labor</td>
<td>1,471,993.34</td>
<td>86.60</td>
</tr>
</tbody>
</table>

Source: Boni Arta Partona Cooperative

Revenues obtained by duck farmers in Boni Arta Partona Cooperative that empowers employees People with Schizophrenia (ODS) is derived from the sale of duck meat because the ducks are reared farmers are still productive. This is in line with Alders (2004) and Indrayani et al. (2019), who stated that revenue is the value of money received from the sale of business products, revenue from duck meat farming is eggs.

### 4.2. Duck Farming Income

Revenue is the difference between the revenue earned and the value of the costs incurred from a form of production activity. The average amount of income earned by duck farming for one month is Rp. 1,744,384.78. In detail, the income of duck farming can be seen in Table 2.

### Table 2. Average Livestock Business Income

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reception</td>
<td>3,443,693.62</td>
</tr>
<tr>
<td>2</td>
<td>Production cost</td>
<td>1,699,308.84</td>
</tr>
<tr>
<td>3</td>
<td>Income</td>
<td>1,744,384.78</td>
</tr>
</tbody>
</table>

Source: Boni Arta Partona Cooperative

Table 2 shows average livestock business income. It indicates that average ownership of ducks, each duck that is kept can provide a profit of Rp. 7,551.45 per month.

### 4.3. Empowerment Goals People with Schizophrenia (ODS)

The achievement of results of this activity is designed to increase the community's knowledge or literacy about schizophrenia and how they should interact socially with their survivors. Increasing public knowledge about schizophrenia is expected to change their attitudes and treatment against ODS. That way, efforts to strengthen social cognition in ODS can run more smoothly good considering the support from the surrounding environment. Each facilitator who will carry out a mentoring process must go through various stages and a long process. To reach this stage, researchers found various obstacles and important lessons that can be learned from each process that is passed. Researchers must look for various information to find out the conditions and situations while in the field, learn together with various parties and the surrounding community to explore various things about the potential and existing assets. Study together to gain new knowledge to improve the quality of life for a better direction. The twists and turns in carrying out the role of a facilitator is not easy, blending in with the community requires a fairly long process. It takes a long time to be able to accept the arrival of new people during society. They don't necessarily accept the presence of new people with open arms, even some people consider the arrival of a facilitator to be a thing ordinary and trivial. This is common in the field; these obstacles are the beginning that researchers must face. Go through each stage and enjoy the flow that occurs during the facilitator's mentoring (see Figure 6).
To measure the success of achievement, communicate directly with family members or people with ODS and confirm whether there is a change in attitude from the environment towards ODS after the counseling. From the information that the team got, it was informed that the pattern of community social inclusion is getting better for their family members with ODS, and their family members with ODS are also considered to be more open to interacting with the surrounding environment. Since the establishment of this farm, ODS family members have also reported a decrease in the prevalence of symptoms such as being alone, which is usually shown by their family members with ODS, and a reduced risk of recurrence. The achievement of this activity in raising livestock is an initial effort to empower ODS which can be followed by other empowerment efforts in the future. In addition to social empowerment, ODS generally also experience problems in terms of economic empowerment. In fact, several recent studies confirm that ODS is basically able to work like other members of society. Therefore, this activity is in the context of empowering ODS economically.

5. Conclusions

Schizophrenia is a serious mental illness that makes sufferers often neglected. In fact, with proper treatment, patients can live independently and actively in the community. However, this picture is not visible at all when talking with farm employees with Schizophrenia, they are able to understand what they are asked to do and are able to do a good job and even work harder than ordinary people who do not have Schizophrenia disorder. From experience, I know the many benefits of working in the recovery process of those suffering from Schizophrenia. One qualitative study interviewing people with mental illness found that work brings two positive effects. First, helping sufferers feel that life is more meaningful. Sufferers state that work increases self-confidence and pride. Second, it helps speed up healing. By working, they are placed to use effective ways of dealing with mental illness symptoms.

A social breakthrough is urgently needed to break down the stigma that people with mental illness cannot work optimally. It is important for companies to be open about hiring people with schizophrenia. This social support will not only be very helpful for sufferers and their families but will also have a positive impact on our economy and society. The existence of social support, family support, and the right treatment will make the sufferer recover much faster. For this reason, the company must also be willing to work as long as to start employing those who suffer from mental disorders, because, in addition to helping the sufferer, it will also help the family's economy, besides that there are also positive impacts that can be obtained in the community. The existence of empathetic support and having high social values makes people aware of the importance of helping each other, not only for the sufferer but for other environments out there. Because mental illness like this is not to be shunned or abandoned, but we must embrace it so that those who suffer from illness can recover as usual. Getting to know the types of schizophrenia that may be useful.

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**References**


