Analysis of Family Nursing Problems: Inability of Family Coping in Tuberculosis Families with Diabetes Mellitus

Laylatul Firdausiah*, Tantut Susanto2, Niken Asih Laras Ati2, Syahroni Bahtiar3

ABSTRACT

Tuberculosis (TB) and Diabetes Mellitus (DM) are two health problems that are quite large epidemiologically and have a major impact globally because they are both chronic and interrelated diseases. Diabetes Mellitus health problems with tuberculosis can change coping in the family, the family will provide adaptive behaviors such as supporting sick family members or maladaptive such as limiting himself to adapt to family health problems. The purpose of this study is to analyze family nursing problems: family coping disabilities in Tuberculosis with Diabetes Mellitus families in the working area of the Ajung Health Center. The participants in this study were two families in the working area of the Ajung Health Center, Jember Regency, namely Mr. L's family and Mrs. N's family. This study was conducted through family nursing care coaching for 3 weeks, assisted families were given family nursing care with 6 times visits for 30 minutes. This case study method emphasizes the analysis of nursing problems from family coping disabilities in Tuberculosis with Diabetes Mellitus families in depth, meaning researchers who want to examine a single event. The results of the case study showed that both families had nursing problems, family coping disabilities. As a nurse, it is very important to recognize the emotional and psychological difficulties experienced by adapting families and learn how to coping with family coping disabilities. Providing emotional support is part of a nurse's job, understanding the nursing diagnosis in this case is key.

KEYWORDS

Diabetes Mellitus, Coping Inability, Family, Nursing Problem, Tuberculosis

How to cite:

1. BACKGROUND

Tuberculosis (TB) and Diabetes Mellitus (DM) are two health problems that are quite large epidemiologically and have a major impact globally because they are both chronic diseases and interrelated. According to the International Diabetes Federation, Indonesia ranks seventh with the highest prevalence of diabetes cases in the world, which is as many as 10.7 million below China, India, America, Brazil, Mexico and Pakistan. While Indonesia is ranked second in TB cases...
after India as many as 969,000 cases with a death rate of 144,000. DM-TB mortality is 4x higher risk of death during TB treatment. The highest cases of DM-TB in Indonesia in 2022 are in West Java, East Java, Central Java, North Sumatra and DKI Jakarta. The number of DM-TB cases itself in Jember Regency in the last two years with a total of 589 cases with details in 2022 amounting to 312 cases in the male sex and 277 cases in the female sex, in 2023 there are 717 cases with details of 356 cases in the male sex and 361 cases in the female sex (Dinkes Jember, 2023). The aim of this study is to analyze family nursing problems: family coping disabilities in Tuberculosis with Diabetes Mellitus families in the working area of the Ajung Health Center. Diabetes mellitus (DM) is one of the most common risk factors in pulmonary TB patients. Currently, the prevalence of pulmonary TB is increasing along with the increasing prevalence of DM patients. The frequency of DM in TB patients is reported to be around 10-15% and the prevalence of this infectious disease is 2-5 times higher in diabetic patients compared to non-diabetic ones. TB patients with DM also have a risk of death up to 4 times higher during treatment and are more susceptible to relapses. Based on Riskesdas data in 2018, from the results of Riskesdas in 2018 the prevalence of DM increased to 8.5% compared to Riskesdas in 2013, which was 6.9% (Permenkes No. 11, 2022).

Diabetes Mellitus is a chronic disease that requires complex treatment and requires family support as a support system in overcoming worries and emotional burdens due to the disease. Family plays a role in reducing the occurrence of recurrence rates, because the family is a major support system by providing direct care in situations when patients experience illness or in good health. Thus, it is hoped that with the nursing approach, families will not only care for sick members but also act more proactively in efforts to treatment and prevention in order to reduce the rate of TB recurrence with DM (Arini, 2022). Health problems that arise in the family certainly depend on how the family carries out family health care functions. Health problems Tuberculosis with Diabetes Mellitus can change coping in the family, Another effort made by families is home care efforts. The adaptation process of families living with chronic disease sufferers, among others, the concept of normalization by putting disease care routines in their daily activities including lifestyle changes in accordance with the treatment plan undertaken by sufferers (Whitehead, 2018). The adaptation process
that families show includes also carrying out activities that they believe can rationally reduce the impact of the disease or even cure. The family will provide adaptive behaviors such as supporting sick family members or maladaptive such as limiting themselves to adapt to family health problems.

Based on the results of an interview conducted with the Head of TB Poly in the working area of the Ajung Health Center, Jember Regency in December 2023, there are 133 outpatient TB patients, while 14 TB patients with DM. Based on the results of interviews from 2 tuberculosis patients with Diabetes Mellitus in the working area of the Ajung Health Center, it showed that both of them experienced family coping problems from the results of the family analysis experienced symptoms of feeling ignored due to family resistance to treatment.

2. CASE REPORT

The nursing diagnosis of family coping disability can be established if 80-100% appear signs of major symptoms as well as signs of minor symptoms as support. Major signs and symptoms in the family can arise due to TB health problems with DM so that maladaptive responses appear in the family such as clients feel neglected, unable to meet the needs of family members, intolerant and neglect of family members (Nadirawati, 2018). Feelings of neglect that arise because the client's family has feelings of pressure in the parenting process, financial problems, or other things. The causes of families who have nursing problems, family coping disabilities, are family behaviors or attitudes that are unable to support care or treatment and do not conduct regular checks. Another cause is different coping patterns between clients and loved ones. In the second family, a nursing diagnosis of family coping disability is associated with family resistance to complex treatments or medications (Damayanti, 2023). Mr. L's family said that the family cannot express its feelings about the current health problems because it does not want to offend and does not want to increase the burden on the family's mind so that the family cannot be open to express the family's feelings that are currently felt.

In the first family, a nursing diagnosis of family coping disability is associated with family resistance to complex treatments / treatments evidenced by feeling neglected, feeling depressed, unable to meet the needs of family members, history of DM since 2 years ago, intolerant to treatment. In the second family, a nursing diagnosis of family
coping disability was obtained related to family resistance to complex treatments / treatments evidenced by feeling neglected, feeling depressed, unable to meet the needs of family members, history of DM since 3 years ago, intolerant to treatment. Both families said that the family was unable to support treatment and treatment and did not conduct regular check-ups and could not express their feelings about the current health problems because they did not want to offend and did not want to increase the burden on the family's mind so that the family could not be open to express the family's feelings that were currently felt.

**Intervention or Clinical Examination**

The main priority problem in both fostered families is the inability of family coping associated with family resistance to complex treatments / treatments evidenced by feeling neglected, efforts to build a meaningful life disrupted, feeling ignored, feeling depressed, noncommittal, rejecting behavior, efforts to build a meaningful life disrupted, healthy behavior disturbed, family member dependence increases, the reality of family members' health is disturbed. Family is an important aspect of the nursing process. Family plays a role in overcoming the health problems of family members. Family members really need care, supervision, and attention when suffering from health problems such as Diabetes Mellitus and Tuberculosis. Families must have effective coping and be competent in overcoming the health problems of family members (Senanayake, 2018).

**3. RESULTS**

<table>
<thead>
<tr>
<th>Data Characteristics</th>
<th>Etiology</th>
<th>Nursing Problems</th>
</tr>
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<tbody>
<tr>
<td><strong>Subjective Data</strong></td>
<td></td>
<td></td>
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<tr>
<td>- Mr. L said he had DM since 2 years ago</td>
<td>Mr. L with Diabetes mellitus and Tuberculosis</td>
<td>Family Coping Incompetence</td>
</tr>
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<td>- Mr. L said that he felt neglected by family members because of the health issues he was currently facing.</td>
<td>Complexity of health problem treatment</td>
<td></td>
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<td>- Mr. L's family said that currently TB treatment is approximately 4 months</td>
<td>Ineffective Individual Coping</td>
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<td>- Mr. L's family said visits to health facilities are rare, only during relapses check into health facilities</td>
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<tr>
<td>- Mr. L's family says the family feels distressed because of the complex treatment</td>
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In Mr. L's family, the pattern of family communication in each family member is disturbed, namely family members are unable to express the feelings experienced freely. The pattern of family roles in Mr. L's family was disrupted because DM and TB health problems made the father's role as breadwinner unfeasible. Patterns of family norms and values, individual perceptions related to something beneficial or not for themselves. The pattern of family strength will be addressed from how family decision making in undergoing family treatment of TB with DM. In families, it will be difficult to make the right decisions in fulfilling family coping such as family members who limit their ability to adapt to health problems experienced. The client feels neglected by family members due to the health issues she was currently facing, unable to meet the needs of family members, feels depressed and intolerant with the treatment that must be undergone because of TB health problems with DM. In the problem of family coping disabilities, in Mr. L's family, nursing problems arise caused by the inability of the closest people to express feelings and family coping patterns that are different from other family members, so that when stressors arise, conflicts will arise in the family. The inability of family coping that arises in this family is also caused the family limits the ability to adapt to the health problems of TB clients with DM faced today.
**Table 1. 2nd Client data analysis**

<table>
<thead>
<tr>
<th>Data Characteristics</th>
<th>Etiology</th>
<th>Nursing Problems</th>
<th>Family Coping Incompetence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subjective Data</strong></td>
<td>Mrs. N with Diabetes Mellitus and Tuberculosis</td>
<td>↓ Complexity of health problem treatment</td>
<td>↓ Denial of treatment / medication</td>
</tr>
<tr>
<td></td>
<td>↓ Denial of treatment / medication</td>
<td>↓ Ineffective Individual Coping</td>
<td>↓ Coping patterns differ among family members</td>
</tr>
<tr>
<td></td>
<td>↓ Ineffective Individual Coping</td>
<td>↓ Family resistance to complex treatments / medications</td>
<td>↓ Family coping disabilities</td>
</tr>
<tr>
<td><strong>Objective Data</strong></td>
<td>Lab Test Results November 9, 2023 GDA 292 mg/dL</td>
<td>Lab examination results on November 9, 2023, namely Left Pulmonary TB</td>
<td>The treatment currently undergoing is Glimepirid 2mg, Rifampicin 150mg, Isoniazid 75mg, Pyrazinamide 400mg, Cefixime 100mg, Ethambutol 275mg</td>
</tr>
</tbody>
</table>

In Mrs. N's family, the pattern of family communication in each family member is disturbed, namely family members are unable to express the feelings experienced freely. The pattern of family roles in Mrs. N's family was disrupted because DM and TB health problems made the father's role as breadwinner unworkable. Patterns of family norms and values, individual perceptions related to something beneficial or not for themselves. The pattern of family strength will be addressed from how family decision making in undergoing family treatment of TB with DM. In family health problems, it will be difficult to make the right decisions in fulfilling family coping such as family members who limit their ability to adapt to health problems experienced. In communication patterns, families that have poor communication patterns can occur due to impaired family functions. While the exchange of information between family...
members, the involvement of each family member and the role possessed by family members are family functions (Susanto, 2021).

The results showed that both fostered families with tuberculosis health problems with diabetes mellitus had signs and symptoms that appeared in the family such as feeling neglected, intolerant, unable to meet the needs of family members and...
neglecting family members (Tim Pokja SDKI DPP PPNI, 2017). The cause of these signs and symptoms is due to different family coping patterns among family members and family resistance to complex treatments/medications. So that the problem of nursing incompetence nursing coping arises in both fostered families.

1) Analysis of Minor Characteristics

**Too worried about family members**

Based on the findings in both managed families, families expressed excessive worry when a family member was sick. This is because the sick family can transmit the bacteria / virus to other family members either directly or through droplets or genetically or down and down. As the results of research on clients with chronic diseases state that emotional responses displayed by the family during the period of diagnosis, treatment and course of illness include feelings of shock, disbelief, denial, anger, guilt, depression, anxiety, uncertainty of the prognosis of the disease, fear, loss of control and other accompanying perceptions (Nair, 2017).

**Feeling depressed (depression)**

Based on findings in both managed families, families said they felt stressed and depressed because of the client's treatment/treatment that was large and took a long time. This is because DM treatment if not controlled will worsen the client's condition and TB treatment that must be completed for 6 months. A study in the journal Annals of General Psychiatry Biomed Central in 2020 revealed, people with TB are at high risk of depression. Depression causes TB patients to experience feelings of pressure, constant mood swings, difficulty socializing with family (Duko, 2020).

**Noncommittal**

Based on findings on both managed families, one family cannot be sure to commit. This is shown because there are family members who reveal that clients do not want to comply with the treatment currently undertaken. The commitment is an individual state in which individuals become bound by their actions. Through this action, it will generate confidence that supports its activities and involvement. Commitment within the family is very necessary as well as treatment compliance of TB clients with DM which requires consistency in treatment adherence (Gilbert & Konya, 2020).
Neglecting the treatment of family members

Based on the findings of both managed families, both families neglected daily care while at home with other family members. This is because the lifestyle applied in the family is still traditional so that the family is not accustomed to the treatment or treatment of family members. One of the roles and functions of the family in systems theory is as a caregiver to sick family members (Zhang, 2018). The concept of normalization in families that have family members with chronic diseases is done by changing lifestyles that support the treatment process (Leite, 2019).

Increased dependence of family members

Based on findings in both managed families, both clients felt dependent on family members. This is because TB health problems with DM make clients tired quickly and unable to carry out activities such as fulfilling their self-care so that clients depend on the family who cares for them. According to the American Diabetes Association (ADA, 2006) state that diabetes management planning should be discussed as an individualized therapeutic between patients and their families and patients should receive coordinated medical care and integration from health teams, such as doctors, physician assistants, nurses, nutritionists, pharmacians and psychologists. So that families realize the importance of participation in the care of people with diabetes mellitus.

2) Analysis of Major Characteristics

Feeling ignored

Based on findings on both managed families, one family had feelings of neglect by family members. This is because other family members cannot give a positive response so that clients feel ignored by other family members. When family members experience problems with their health, other members play an important role in the nursing process. Families who can motivate, provide full support, and pay attention to sufferers, thus making sufferers more excited and more motivated to recover from their illness which can improve the quality of life of DM patients (Putra et al., 2021).

Doesn’t meet the needs of family

Based on the findings of both managed families, both have problems in meeting the needs of family members. This is because in TB health problems with DM, clients cannot work and cannot meet needs
according to family functions and roles. This is in line with another research also shows that almost half of families (49%) have not been able to carry out family health care functions (Agrina, 2022).

Intolerant

Based on findings in both managed families, one of the families showed no tolerance or acceptance of medication or treatment to clients. This is because the family cannot adapt to the health problems experienced by the family. Based on research conducted by Setiawan (2020), patients with diabetes mellitus have problems such as inability to carry out functions both in the family and community. This will cause psychological impacts in the form of anxiety disorders that can reduce the quality of life of sufferers.

Neglecting family members

Based on findings in both managed families, both families experienced poor communication and maladaptive family functioning. This is because there is no commitment to treatment and care so that the function of health care is not optimal. Previous research in Umban Sari Village Rumbai Health Center working area showed that 51% of families were able to carry out family health care functions, while 49% of families were unable to carry out family health care functions (Zulfitri, Agrina, & Herlina, 2014).

3) Cause

Family resistance to complex treatments

Based on the findings, in both families it was found that both families experienced resistance to the treatment / treatment currently undertaken, namely treatment for 9 months. This was conveyed by one family member that the client was reluctant to routine check-ups every month, reluctant to change his diet according to the health problems faced, reluctant to take treatment because the treatment given was a lot so that the client felt stressed. Families living with chronic pain sufferers face severe challenges in their lives in the form of stress, anxiety and anger due to the medication routines they must do (Amja, 2021). Based on this, the family plays an important role in the care or treatment of family members. The role that can be given by the family is as a support system to support family members and provide motivation for family members who currently have TB health problems with DM.
4) Problem

The main priority problem in both fostered families is the inability of family coping associated with family resistance to complex treatments / treatments evidenced by feeling neglected, efforts to build a meaningful life disrupted, feeling ignored, feeling depressed, noncommittal, rejecting behavior, efforts to build a meaningful life disrupted, healthy behavior disturbed, family member dependence increases, the reality of family members' health is disturbed. Family is an important aspect of the nursing process. Family plays a role in overcoming the health problems of family members (Susanto et al., 2018). Family members really need care, supervision, and attention when suffering from health problems such as Diabetes Mellitus and Tuberculosis. Caring for family members by understanding nursing problems for handling problems in the family and providing family support to TB families with DM. This will affect the motivation and acceptance of the family in caring for sick family members. If the family does not have good acceptance, it can actually reduce the motivation of the family. Clients become shy/inferior, do not want to meet other people, do not do social activities or experience social changes (Sulistyono, 2020). His spiritual change the client felt unable to carry out religious activities. The impact of changes that occur on clients will affect the family both economically, attention, boredom, feeling a heavy burden and considering only one's own family who have the same problems. Long-lasting repercussions will cause conflicts in the family. Such conflicts in the family can result in family coping disabilities and can disrupt the family structure.

4. CONCLUSION

Based on case studies of family coping disability problems of both families in the Ajung Health Center Work Area, it can be concluded that: Researchers are able to identify signs and symptoms, etiologies, nursing diagnosis of family coping disabilities in diabetes mellitus families with tuberculosis. As a nurse, it is very important to recognize the emotional and psychological difficulties experienced by adapting families and learn how to coping with family coping disabilities. Providing emotional support is part of a nurse’s job, understanding the nursing diagnosis in this case is key.
ACKNOWLEDGMENT

We would like to thank the chairman of Ajung Health Center, and the respondents for their cooperation in this study.

AUTHOR CONTRIBUTIONS

Substantial contributions to conception, data collection, data analysis, and writing: Laylatul Firdausiah, Tantut Susanto, Niken Asih Laras Ati, and Syahroni Bahtiar. Drafting or revising the article critically for important intellectual content: Laylatul Firdausiah.

CONFLICT OF INTEREST

The author declares that there is no conflict in the preparation of this article.

DATA AVAILABILITY STATEMENT

The data obtained in this study is available from the author and is not published for certain reasons; namely, there are private data of respondents that are confidential.

REFERENCES


