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Migraine management: Community-based care approach

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Abstract:
This case study is based on a 39-year-old female client, Mrs. S, from Dimber village, Sirmour district, diagnosed with migraine. The study was conducted during community health nursing posting under the guidance of Mr. Muthu Kumaran, Akal College of Nursing. Data were collected through interviews, physical examination, and family assessment. The client presented with usually experiences a throbbing or pulsating headache—often on one side of the head—accompanied by nausea, vomiting, and a strong sensitivity to bright light and loud sounds, which makes it difficult to carry out daily activities. Based on the assessment, nursing diagnoses consistent with NANDA-I included: acute pain, sensory perception disturbance (photophobia/phonophobia), nausea related to migraine episodes, sleep pattern disturbance, activity intolerance, and deficient knowledge regarding trigger management and lifestyle modification. Interventions implemented included pain management strategies (cold compress, rest in a dark quiet room), hydration guidance, sleep hygiene promotion, stress-reduction techniques, dietary counseling to avoid known triggers, and education on early warning signs and preventive practices. Environmental modifications included minimizing bright light exposure, improving ventilation, and reducing noise stimuli.

Keywords:
Migraine, Community Health Nursing, Nursing Care Plan, Health Education, future attacks.



1. Introduction:

Migraine is a complicated neurovascular brain illness, migraine is typified by frequent, intense migraine attacks that are often unilateral, pulsing, and sometimes accompanied by nausea, vomiting, photophobia, and phonophobia.(1)

Significant financial and health costs are associated with migraines. Less than 13% of individuals with episodic migraines take preventative drugs, despite the fact that 38% of them might benefit from such treatment. The frequency, intensity, and suffering associated with headaches are all decreased with preventive drug treatment. Additionally, preventive treatment may enhance quality of life and stop the development of chronic migraines.(2) Triptans are the first-line treatment for moderate to severe migraines, whereas acetaminophen and nonsteroidal anti-inflammatory medications are the first-line treatment for mild to moderate migraines.(3) The second decade is when migraines most commonly appear, culminating during menarche.2 x 3. There are at least two times as many female migraineurs as male migraineurs. Prepubescent children do not exhibit this

sex difference.e5. Sixty percent of women get migraine episodes during their periods, and fourteen percent experience real menstrual migraines just during their periods.In 33% of women, menstruation-related migraines start at menarche.6. The majority of research does not distinguish between premenstrual migraine and others.(4)

While migraines can strike anybody at any age, they typically start in young adulthood and can last until middle age, as this 39-year-old client experienced. Common factors include stress, inconsistent sleep patterns, missing meals, certain foods, and hormonal fluctuations. Migraines can be unpredictable for certain people, making it challenging to handle social obligations, job, and family duties. It can also result in worry, restless nights, and a lower standard of living if left untreated or repeated.

2. Case presentation identification and background:

In February 2025, during the community health posting at Dimber village, District Sirmour, Himachal Pradesh, a 39-year-old female client, Mrs. S, was identified suffering from migraine The client had been experiencing recurrent throbbing or pulsating headache—often on one side of the head—accompanied by nausea, vomiting, and a strong sensitivity to bright light and loud sounds, which makes it difficult to carry out daily activities.

2.1. Past medical history:

No significant past medical history except for recurrent episodes of migraine

Past surgical history:

No history of surgical procedures.

2.2. General examination (Date: 10 -02-2025)

Height: 164cm
Weight: 60 kg
BMI: 22.3(Normal)
Temperature: 98.8°F
Pulse: 86 bpm
Respiration: 21/min
Blood Pressure: 130/90 mmHg

2.3. Diagnosis:

Migraine

2.4. Treatment:

During the episode, the client was encouraged to rest in a quiet, dark room because bright lights and loud sounds made the pain worse and provided as prescribed by PHC centre Dimber pain-relief medicines such as NSAIDs to reduce the headache and triptans to control severe pain and nausea. The client was also guided to drink enough water throughout the day, as dehydration can trigger or intensify migraine attacks.

Home remedies

- Cold Compress
- Ginger Tea
- Head Massage
- Magnesium-Rich Foods

2.5. Nursing care plan:

Pain related to severe headache of migraine as evidenced by difficulty in carrying out the daily activity
Knowledge deficit related to migraine condition and prevention of recurrence.

2.6. Nursing care and education:

- Advised the client to to drink enough water throughout the day, as dehydration can trigger or intensify migraine attacks.
- Educate to identify and avoid her personal triggers, such as stress, certain foods, or lack of sleep.
- Encourage her for a regular routine meal on time, sleep well, and stay hydrated.
- Explain her about migraine when starts, rest in a quiet, dark room and take your prescribed medicines as directed.
- Explain Practice simple relaxation techniques like deep breathing or meditation to help reduce stress.
- Instructed on headaches and follow up regularly with healthcare provider to adjust treatment if needed.

2.7. Environmental modifications for migraine:

- Advised maintaining a calm, quiet, and low-light home environment to reduce exposure to strong light and noise, which can trigger migraine attacks.
- Encouraged ensuring proper ventilation and fresh airflow inside the home to prevent heat, stuffiness, and strong odors from aggravating headaches.

2.8. Patient outcome and follow-up:

With consistent nursing care, regular monitoring, and adherence to the individualized migraine management plan, the client reported a marked reduction in the frequency, duration, and intensity of migraine episodes. Symptoms such as photophobia, nausea, and pulsating headache significantly decreased over the follow-up period. The client demonstrated improved understanding of migraine triggers, lifestyle modifications, and the correct use of both abortive and preventive medications.

She actively adopted healthier practices, including maintaining regular sleep patterns, ensuring adequate hydration, managing stress through relaxation techniques, avoiding known dietary and environmental triggers, and using prescribed medications at the onset of symptoms. The client also showed increased confidence in self-management and early recognition of prodromal signs, which helped prevent severe attacks.

3. Discussion:

In February 2025, during a community health visit to Dimber village, District Sirmour, a 39-year-old client was identified with recurrent migraine episodes. The client reported repeated attacks of severe, throbbing headaches accompanied by nausea, vomiting, and sensitivity to light and sound. Although the client used pain-relief medicines occasionally, the symptoms continued due to irregular medication use, poor sleep habits, stress, and skipped meals.

The study's most obvious drawback is its generalisability to the general population, which emphasises the need for more research to determine the impact of melatonin on migraine prevention. (5) A retrospective clinic-based investigation found that the proportion of migraine with aura attacks that only occurred during the menstrual month was comparable to that of migraine without aura (4% vs. 3%). This finding was ascribed to clinic selection bias since migraine with aura prompted patients to visit clinics.(6)

There was also little or no difference in other migrainous symptoms (including nausea and vomiting, photo- and phonophobia) at both up to two hours, and 12 to 72 hours, but the evidence was all very uncertain. (7)

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