Nursing care of child with pneumonia

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Pneumonia

In 2019, pneumonia was the leading infectious cause of death globally among children, half being in sub-Saharan Africa.

Now 2nd leading cause of admissions and death of under-five in Uganda (Wanyana et al., 2024).

Under-five mortality rate in Uganda is 40.5/1000 from 180/1000 in 1990 (Unicef, 2022).

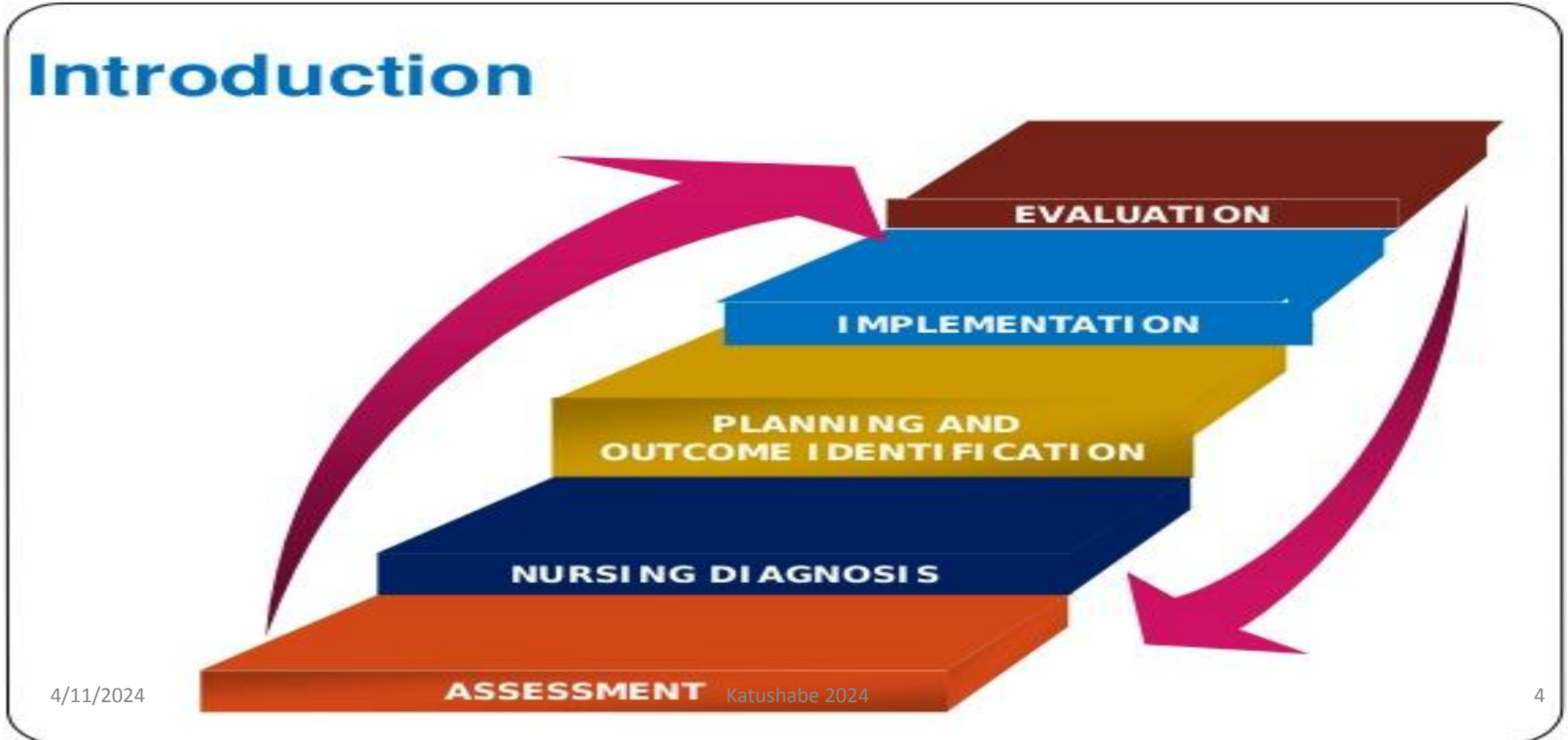
SDG 3.2 targets by 2030, end preventable deaths of newborns and children under 5 yrs of age. Reduce mortality to at least 25 per 1000 live births.

Nursing process

- It is a scientific, systematic, goal oriented method which provides a framework to nursing care(Toney-Butler and Thayer, 2022).

- Provides individualised care for clients in all states of health and illness, focusing on achieving outcomes in a cost effective manner(Suhonen et al., 2018).

Steps


Introduction
EVALUATION
IMPLEMENTATION
PLANNING AND
OUTCOME IDENTIFICATION
NURSING DIAGNOSIS
ASSESSMENT

Assessment: Focused versus Comprehensive

- Introduction to mother, create rapport, allay anxiety. Thank them after.
- Have a toy if possible creative ways to reduce anxiety.
- EM/4yrs

Nursing concerns

- Fast breathing (48b/m)
- Decreased oxygenation (Spo2 85-88% on RA)
- Fever(38.1°C)

Nursing concerns

- Fast breathing (48b/m)
- Decreased oxygenation (Spo2 85-88% on RA)
- Fever(38.1°C)
- Increased HR 140b/m

Nursing diagnoses

- Ineffective airway clearance related to increased sputum production as evidenced by coarse crackles, rhonchi(Herdman and Kamitsuru, 2021)
- Ineffective breathing pattern related to inflammatory process as evidenced by dyspnea, subcostal recession, tachypnea(48b/m).
- Impaired gas exchange related to alveolar-capillary membrane changes as evidenced by (hypoxemia) SpO2 reading of 85-88% at RA.
- Hyperthermia related to the infection as evidenced by temp. reading of 38.1°C.

Nursing care plan of EM, M/4yrs

Nursing Diagnosis	Expected outcome	Intervention	Rationale	Evaluation
Ineffective airway clearance related to increased mucus production as evidenced by coarse crackles bilaterally in all lung fields	Patient will maintain clear open airways as evidenced by normal breaths sounds, ability to effectively cough up secretions after treatment within 72hrs	Assess airway patency Auscultate lungs for presence of normal sounds at least every 4 hrs. Encourage coughing, monitor amount, color, odor of secretions Maintain humidified oxygen as prescribed Give prescribed Antibiotics, mucolytic, bronchodilators, (Doenges et al., 2019) Coordinate physiotherapy Health educate mother on adequate in take	To maintain a patent airway To monitor breath sounds regularly The most convenient way to remove secretions Humidified air reduces thickness of secretions To promote airway clearance of infective agent and reduce airway resistance Techniques like chest percussion mobilize secretions that cannot be eliminated by coughing or suction Hydration facilitates liquefaction of secretions	No nasal flaring, mild dyspnea with occasional rhonchi after 24hrs At 48hrs, no distress, reduced crackles in lung fields
Ineffective breathing pattern related to inflammatory process as evidenced dyspnea, subcostal recessions, tachypnea with RR-48b/m	Patient maintains an effective breathing pattern, as evidenced by relaxed breathing at normal rate and depth within 72 hours Patient's respiratory rate remains within established limits(20-30b/m) within 24 hours	Observe breathing patterns. Placing the child in semi fowler's position Ambulation as tolerated Assess and record RR & depth at least every 4 hours.	To ascertain changes in breathing pattern To promote lung excursion and chest expansion To break up & move secretions blocking the airways	After 24hours RR 35b/m and mild dyspnea noted

References

- Coll-Seck, A., Clark, H., et al 2019. Framing an agenda for children thriving in the SDG era: a WHO–UNICEF–Lancet Commission on child health and wellbeing. *The Lancet*, *393*(10167), pp.109-112.
- Doenges, M.E., Moorhouse, M.F. and Murr, A.C., 2019. *Nursing care plans: Guidelines for individualizing client care across the life span*. FA Davis.
- Herdman, T.H. and Kamitsuru, S., 2021. *Nursing diagnoses*.
- Pajuelo, M.J., et al 2018. Delays in seeking and receiving health care services for pneumonia in children under five in the Peruvian Amazon: a mixed-methods study on caregivers' perceptions. *BMC health services research*, *18*, pp.1-11.

References

- Suhonen, R., Stolt, M. and Papastravou, E., 2019. Individualized care.
- Toney-Butler, T.J. and Thayer, J.M., 2022. Nursing process. In *StatPearls [Internet]*. StatPearls Publishing.
- Unicef 2022. Key Demographic Indicators
- Wanyana, M.W.,et al 2024. Trends and spatial distribution of pneumonia admissions and deaths among children< 5 years, Uganda, 2013–2021. *medRxiv*, pp.2024-02.