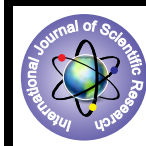


A Study on the Effect of Position in COPD Patients to Improve Breathing Pattern



Medical Science

KEYWORDS :

Dr. Geeta Singal

Associate Professor, P D U medical college, Rajkot.

Dr. Dipti V. Thakker

Assistant Professor, B J Medical College, Ahmedabad.

Mrs. Suman Deviputra

Principal, Shantiniketan Nursing College, Pedusma, Mansa

ABSTRACT

From this research study the effect of position in COPD patients to improve breathing pattern could be identified. It is found that 64% of people are preferable in position at 45° angle with pillow position at 60° angle within 24% of people and 12% of people is preferable in position at 90° angle with pillows. In case of severe asthma patient is suggesting the position at 90° angles with pillows & COPD patient is suggesting the position at 45° angles with pillows. The client is placed in a fowler's position to reduce the pulmonary venous congestion and relieve the dyspnea. In this study the objective was to find out the effectiveness of breathing pattern through use of comfort devices while positioning for patient with COPD.

Objectives of the study are:

1. To evaluate the effect of position in COPD patients to improve breathing pattern as verbalized by the patient.
2. To find out whether there is any difference in breathing pattern with change of position.
3. To identify the effectiveness of breathing pattern through use of comfort devices while positioning for patient with COPD.

Introduction:

The health history focuses on the physical & functional problem experienced by the patient and the effect of these problems on the patient's life and life style. COPD is a broad classification of disorders including chronic bronchitis, bronchiectasis emphysema and asthma. It is an irreversible condition associated with dyspnea on exertion and reduced airflow in or out of the lungs. It affects over 25% of the adult population. The airway obstruction that causes a reduction in airflow varies according to the disease. In chronic bronchitis and bronchiolitis, excessive accumulation of mucus and secretions blocks the airway.

In emphysema, the obstruction to oxygen and carbon-di-oxide exchange results from destruction of the walls of the alveoli caused by an overextension of the air spaces in the lung narrow. In asthma the bronchial airways are narrow and restrict the amount of air flowing into the lungs. COPD is considered to be a disease related to an interaction of genetics and the environment.

In semi fowlers position the venous return to the heart and the lungs is reduced, pulmonary congestion is alleviated and impingement of the liver on the diaphragm is minimized. The patient who can breathe only in the upright position may sit on the side of bed with feet supported on a chair the head and arms resting on an over the bed table and lumbosacrol spine supported by a pillow .If pulmonary congestion is present, positioning the patient in an armchair is advantageous because this position favours the shift of fluid away from the lungs.

The client is placed in a high fowlers position or chair to reduce pulmonary venous congestion and relieve the dyspnea. Fowler's position is perhaps the most common as well as the most difficult to maintain. The difficult in most instances lies in trying to make the patient fit the bed rather than having the bed conforms to the needs of the patient. The patient's trunk is raised to an angle of 60 to 70 degree. This is a comfortable sitting position. The head of the bed must be raised slowly to reduce the feeling of light hardness. It is not unusual for a patient to feel faint after the head of the bed is raised, for this reason, pulse rate and color must be assessed frequently. If the patient complains of any dizziness, the bed must be slowly lowered. If the dizziness ends, the head of the bed may be raised again in 1 to 2 hours.

Fowlers position is a more erect position in which an effort is made to maintain the position of the patient in sitting posture as nearly upright as possible. This position can be maintained by means of a backrest and additional pillows. The arms should be supported on pillows so that the patient sits with arms sup-

ported in an arm chair fashion.

The chance for thrombosis increased when knee pillows are used for a long period due to pressure on the blood vessels. This position is used whenever the drainage of the abdominal cavity is desired, to localize infection like peritonitis, to relieve breathing difficulty, to relieve tension on the abdominal sutures and to relax the large muscles of the back and thighs. It also gives the patient a sense of well being and makes it easier for him for self care.

Aims and objectives:

1. To evaluate the effect of position in COPD patients to improve breathing pattern as verbalized by the patient.
2. To find out whether there is any difference in breathing pattern with change of position.
3. To identify the effectiveness of breathing pattern through use of comfort devices while positioning for patient with COPD.

Material and methods:

The method adopted for this study was a questionnaire method. According to Eleanor Watters Treece Javies William Treece.

It is composed of a series of questions that are filled in by all participants in the sample. There are two types open-ended questions and closed ended questions.

Open ended questions: - This question may be broader narrow in nature. Frequently they ask why, what and how etc.

Close-ended questions: - A close ended questions is one in which the respondent's answer is limited to the choices offered him.

The study materials received for the research study were different in medical text books and discussion with physicians and nurses.

The method of data collection was done by observation and evaluation with the help of questionnaire.

According to the objective prepared for the study, the effect of positions in COPD patients to improve breathing pattern were identified. Different positions were given to patient and analysis was done. It was possible to rank the different position accordingly.

Effect of position as categorized into: -

- Position at 45° with pillows.

- Position at 60 o with pillows.
- Position at 90 o with pillows.

Table - 1: Effect of position at 45° angle to improve breathing pattern.

Variables	Frequency	Percentage
Position at 45° with pillows	44	68 %

From table one it was found that 68% of patients prefer a position at 45 o angle with pillow as patient got ease in breathing at 45 o angle

Table - 2: Effect of position at 60° angle to improve breathing pattern.

Variables	Frequency	Percentage
Position at 60° with pillows	15	23 %

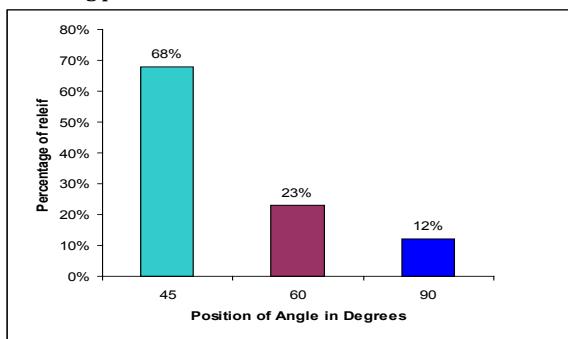
From table two it was found that 23% of patients prefer a position at 60° angles with pillow as patient got ease in breathing at 60° angles

Table - 3: Effect of position at 90° angle to improve breathing pattern.

Variables	Frequency	Percentage
Position at 90° with pillows	8	12 %

From table three it was found that 12 % of patients prefer a position at 90° angles with pillow as patient got ease in breathing at 90° angle

Figure - 1: Effect of position at various angles to improve breathing pattern.



SUMMARY:

From this research project the effect of position in COPD patients to improve breathing pattern could be identified. It is found that 64% of people are preferable in position at 45° angle with pillow position at 60° angle within 24% of people and 12% of people is preferable in position at 90° angle with pillows. In case of severe asthma patient is suggesting the position at 90° angle with pillows & COPD patient is suggesting the position at 45° angle with pillows.

The client is placed in a fowlers position to reduce the pulmonary venous congestion and relieve the dyspnea. In this study the objective was to find out the effectiveness of breathing pattern through use of comfort devices while positioning for patient with COPD.

CONCLUSION:

The study concluded that objective stated were fulfilled and the outcome to expected result were achieved.

The accuracy and quality of response were observed and analyzed.

REFERENCE

1. Brown Pilliteri Kimp, "Fundamental of Nursing," 2nd edition, published by Churchill living stone. Page No. 1088. | 2. Ellis and Nowlis, "Nursing a human need approach," 3rd edition, published by Houghton Mifflin company, Boston. Page No. 563. | 3. Esther Levine Brill Dawn F. Kilts, "Fundamental for Nursing," 2nd edition, published by Harcourt brace, Asia. Page No. 454. | 4. Ignatavicus Workman Mishler, "Medical Surgical Nursing," 2nd edition, published by Lippin Cott publication. Page No. 699. | 5. Kay B. Bushle and Barbara W. Narrow, "Fundamentals of Nursing Practice," 2nd edition, published by A Willey Medical publication. Page No. 632. | 6. Luckman and Sorensen's, "Medical an Surgical Nursing," 4th edition, published by W. B. Saunder's company. Page No. 1106. | 7. Marjorie Beyers and Suan Dudas, "The Clinical Practice of Medical Surgical Nursing," 2nd edition, published by Houghton Mifflin company, Boston. Page No. 377. | 8. Mary L. Soundberg's, "Fundamentals of Nursing with Clinical Procedure," 2nd edition, published by Jones and Berleft publisher Bonton / Partolla valthe. Page No. 354. | 9. Nowlis "Nursing and human need approach," 2nd edition, published by Houghton Mifflin company. Page No. 683. | 10. Philips - Long - Woods - Cassmeyer, "Medical and Surgical Nursing," 4th edition, published by Addison Wesley publishing company. Page No. 962. | 11. Potter and Perry, "Text book of Fundamental and Nursing," 1st edition, published by C. V. Mosby company. Page No. 1178. | 12. Shafer's, "Medical - Surgical Nursing," 7th edition, published by Lippin Cott company. Page No. 352-356. | 13. Shafer Sawyer Maccluskey, Beck, Philips, 6th edition published by Lippin Cott, Philadelphia. Page No. 415. | 14. Sr. Nancy, "Principles & Practice of Nursing," 3rd edition, published by N. R. publishing house. Page No. 254, 255. | REFERENCES | 1. Potter and Perry, "Text book of Fundamentals of Nursing," 1st edition, published by C.V. Mosby company, page no. 1178. | 2. Shafer's, "Medical Surgical Nursing," 7th edition, published by Lippin Cott company, page no. 352, 353. | 3. Marjorie Beyers and Suan Dudas, "The Clinical Practice of Medical Surgical Nursing," 2nd edition, published by Houghton Mifflin company, Boston. Page No. 377. | 4. Kay B. Bushle and Barbara W. Narrow, "Fundamentals of Nursing Practice," 2nd edition, published by A Willey Medical publication. Page No. 632. | 5. Ellis and Nowlis, "Nursing a human need approach," 3rd edition, published by Houghton Mifflin company, Boston. Page No. 563. | 6. Philips - Long - Woods - Cassmeyer, "Medical and Surgical Nursing," 4th edition, published by Addison Wesley publishing company. Page No. 962. | 7. Esther Levine Brill Dawn F. Kilts, "Fundamental for Nursing," 2nd edition, published by Harcourt brace, Asia. Page No. 454. | 8. Mary L. Soundberg's, "Fundamentals of Nursing with Clinical Procedure," 2nd edition, published by Jones and Berleft publisher Bonton / Partolla valthe. Page No. 354. | 9. Luckman and Sorensen's, "Medical and Surgical Nursing," 4th edition, published by W. B. Saunder's company. Page No. 1106. | 10. Nowlis "Nursing and human need approach," 2nd edition, published by Houghton Mifflin company. Page No. 683. | 11. Sr. Nancy, "Principles & Practice of Nursing," 3rd edition, published by N. R. publishing house. Page No. 254, 255. | 12. Kemp, Pillitteri, Brown, "Fundamentals of Nursing," 2nd edition, published by Churchill Living Stone, Page No. 1088. | 13. Shafer Sawyer Maccluskey, Beck, Philips, 6th edition published by Lippin Cott, Philadelphia. Page No. 415. | 14. Ignatavicus Workman Mishler, "Medical Surgical Nursing," 2nd edition, published by Lippin Cott publication. Page No. 699.