



**WELCOME TO
MY PRESENTATION**

**Level of Pain, Depression, Anxiety and Stress
after Mastectomy of women attending Ahsania
Mission Cancer and General Hospital in Dhaka.**

Presented by:

Name: Tania Akter

4th year student of B.Sc. in

Physiotherapy

DU Roll No.: 1718

Registration No.: 8835

Session: 2019 – 2020

Supervised by:

Name: Md Billal Hossain

Lecturer of Physiotherapy

Department of Physiotherapy

SCMST, Saic Tower, M-1/6,

Mirpur-14, Dhaka-1216



Saic College of Medical Science and Technology (SCMST)

Saic Tower, M-1/6, Mirpur-14, Dhaka-1216

Introduction

Breast cancer is the most common cancer among women around the world, with one in eight women at risk being diagnosed with the disease during their lifetime (Melwani R et al. 2022, p.1848). A mastectomy is a surgical surgery in which all or a portion of the breast tissue is removed. Various mastectomy procedures exist, including Halsted's radical mastectomy, modified radical (Patey) mastectomy, total or simple mastectomy, skin-sparing mastectomy, and nipple-sparing mastectomy, among others (Lazaraviciute and Chaturvedi, 2017, pp. 58-66).

Justification

Mastectomy is a surgical procedure involving partial or complete removal of the breast, usually performed for cancer prevention or treatment. After this surgery, many women experience pain, limited arm movement, depression, and anxiety. In Bangladesh, these issues often receive little attention. My study was conducted to understand these problems so that physiotherapy can help not only in restoring arm movement but also in reducing pain and mental stress. This research will assist in developing improved rehabilitation plans combining exercises with mental health support. As data on this topic is limited in Bangladesh, my study provides valuable local insights. It also highlights the importance of a team approach involving doctors, physiotherapists, and counselors.

Research Question

What is the Level of Pain, Depression, Anxiety and Stress after Mastectomy of women attending Ahsania Mission Cancer and General Hospital in Dhaka?

Objective

General Objective

- To assess the Level of Pain, Depression, Anxiety and Stress after Mastectomy of women attending Ahsania Mission Cancer and General Hospital in Dhaka.

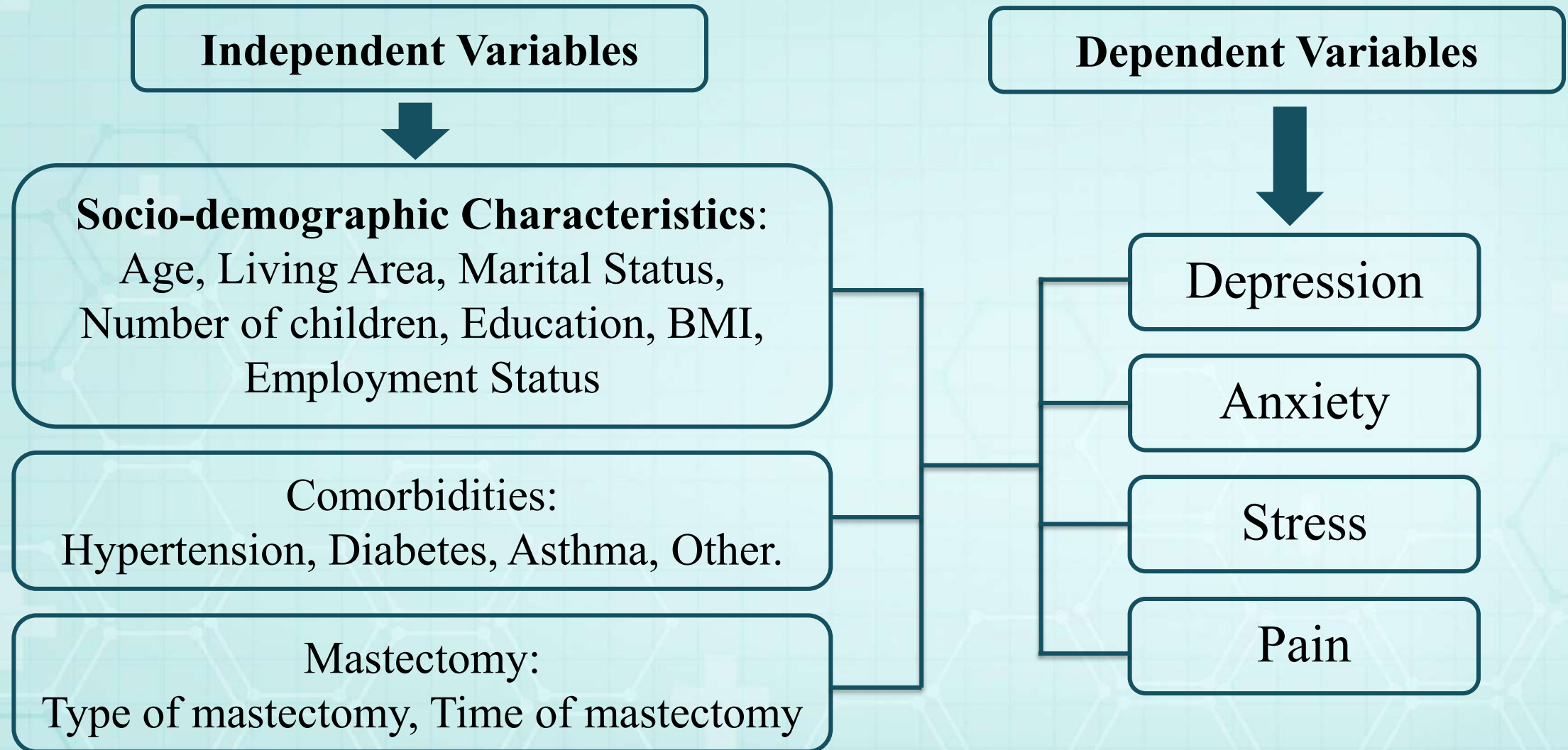
Specific Objectives

- To explore the socio-demographic characteristic of the participants.
- To assess severity of pain among mastectomy women attending Ahsania Mission Cancer and General Hospital in Dhaka by using VAS scale.

Specific Objective Cont.....

- To assess stress, anxiety and depression among mastectomy women attending Ahsania Mission Cancer and General Hospital in Dhaka by DASS-21 scale.
- To find out association between independent Variables (Age, living area, Number of children, BMI, Time of mastectomy, Type of mastectomy, employment status, comorbidities) and Dependent Variable (pain, depression, anxiety and stress).

Conceptual Framework



Methodology

- **Study Design:** Descriptive type of Cross-sectional study.
- **Study Area:** The data was be collected Ahsania Mission Cancer and General Hospital in Dhaka.
- **Study Period:** June 2024 to July 2025.
- **Study Population:** The study population consisted of mastectomy patient in Ahsania Mission Cancer and General Hospital in Dhaka.
- **Sample Size:** As the study is a cross-sectional study, the required sample size was calculated by using the following formula.

Methodology Cont....

We know that-

$$\begin{aligned}n &= \frac{z^2 pq}{d^2} \\ &= \frac{1.96^2 \times 0.5(1-p)}{0.05^2} \\ &= \frac{3.84 \times 0.5 \times 0.5}{0.0025} \\ &= \frac{0.96}{0.0025} \\ &= 384\end{aligned}$$

Here,

n = required sample size

z = confidence level at 95%
(standard value of 1.96)

p = 0.05 (maximum variability)

q = $1 - p$

d = margin of error at 5% (standard value of 0.05)

Methodology Cont....

Sampling Technique: Based on convenience sampling technique.

Eligibility Criteria:

Inclusion Criteria:

- Patients whose surgery took place at least 3 months (Beyaz et al. 2016, pp. 66-71).
- 18-85 years old were included (Beyaz et al. 2016, pp. 66-71).
- Participants willing to provide informed consent for participation in the study.
- Participants able to understand and respond to the questionnaire.

Exclusion Criteria:

- Mental unstable patient.
- Included infection of the breast tissue (detected by pathology following surgery).
- Patients with metastasis or recurrent cancer or those receiving treatment for any psychiatric comorbidity.

Methodology Cont.....

Method of data collection: Face-to-face formal interview.

Instrument of data collection:

- DASS-21 scale to measure levels of depression, anxiety, and stress, after mastectomy.
- VAS scale for severity of pain.
- The English questionnaires were converted into Bengali to ask the participants during interviews

Tools of Data Collection:

- Weight machine.
- Measuring tape.

Data analysis: Data was analysis by using Statistical Package for the Social Science SPSS22 version.

Result: Frequency distribution of the respondents by pain severity:

Severity of pain	Frequency	
	N	%
No Pain (0)	5	5%
Mild Pain (1-3)	19	19%
Moderate Pain (4-6)	57	57%
Severe Pain (7-10)	19	19%
Total	100	100%

Result: Frequency distribution depression of the participants.

Depression of the participants	Frequency	
	N	%
No Depression (0-9)	31	31.0
Mild (10-13)	53	53.0
Moderate (14-20)	16	16.0
Severe >21	0	0
Total	100	100.0

Result: Frequency distribution anxiety of the participants.

Anxiety of the participants	Frequency	
	N	%
No Anxiety (0-9)	41	41.0
Mild (10-13)	44	44.0
Moderate (14-20)	15	15.0
Severe >21	0	0
Total	100	100.0

Result: Frequency distribution Stress of the participants.

Stress of the participants	Frequency	
	N	%
No Stress (0-9)	35	35.0
Mild (10-13)	51	51.0
Moderate (14-20)	14	14.0
Severe >21	0	0
Total	100	100.0

Result: Frequency distribution of the respondents by employment status and level of stress.

Employment status of the participant	Stress of participants				
	No Stress (0-9)	Mild (10-13)	Moderate (14-20)	Severe >21	Total
	N (%)	N (%)	N (%)	N (%)	N (%)
Employed	6 (6%)	3 (3%)	1 (1%)	0 (0%)	10 (10%)
Unemployed	1 (1%)	1 (1%)	0 (0%)	0 (0%)	2 (2%)
Retired	2 (2%)	2 (2%)	4 (4%)	0 (0%)	8 (8%)
Housewife	26 (26%)	45 (45%)	9 (9%)	0 (0%)	80 (80%)
Total	35 (35%)	51 (51%)	14 (14%)	0 (0%)	100 (100%)

$$\chi^2 = 12.876, P = 0.045$$

Result: Frequency distribution of the respondents by comorbidities and severity of the pain.

Comorbidities		Severity of the pain					Chi-square test	
		No Pain (0)	Mild (1-3)	Moderate (4-6)	Severe (7-10)	Total		
		(%)	(%)	(%)	(%)	(%)	χ^2	P
Hypertension	Yes	1	3	22	12	38	9.779	0.021
	No	4	16	35	7	62		
Diabetes	Yes	1	4	20	11	36	6.372	0.095
	No	4	15	37	8	64		
Asthma	Yes	0	1	1	3	5	6.187	0.103
	No	5	18	56	16	95		
Other	Yes	1	5	14	0	20	5.965	0.113
	No	4	14	43	19	80		

Result Cont....

There was no statistically significant association between the pain, depression, anxiety, stress and age, living area, BMI, number of children, type of mastectomy, time of mastectomy among the study participants.

Discussion

Prevalence of mild and moderate depression was 53% and 16% respectively, anxiety was mild in 44% and moderate in 15%, while stress was mild in 51% and moderate in 14%. No severe cases were reported. According to this study finding the prevalence of depressive symptoms, anxiety symptoms, and perceived stress were 68.6%, 73.3%, and 78.1% respectively. Moderate to severe anxiety, depression, and stress were more prevalent among advanced disease patients, patients who underwent surgery (Alagizy et al. 2020, p. 29). other study finding 70% anxiety, and cancer patients in general may experience depression in 10–25% of cases (Tan et al. 2022, p.201).

Discussion Cont.....

Pain severity shows the study according the VAS scale the scale divided into four categories: (0) 5% no pain, (1-3) 19% mild pain, (4-6) 57% moderate pain, (7-10) 19% severe pain to the participants suffering.

This cross-sectional study was approved by the Sakarya University, Medical Faculty Ethical Council and included 146 patients ranging in age from 18 to 85 years who visited the pain clinic, general surgery clinic, and oncology clinic and had breast surgery between 2012 and 2014 this study funding the number of patients reporting low pain levels (VAS 0–3) was 66 (78.6%), while 18 reported moderate pain (VAS 4–7, 21.4%). No patients reported VAS >7 (Beyaz et al. 2016, pp. 66-71).

Conclusion & Recommendation

This study examined the pain, depression, anxiety, and stress levels among women who had undergone mastectomy at Ahsania Mission Cancer and General Hospital in Dhaka. The results showed that many participants faced mild to moderate emotional distress, with depression, anxiety, and stress being common. Most women described their pain as a burning sensation, likely due to nerve-related issues, and it usually started a few days after surgery.

Early Physiotherapy Encourage exercises after surgery to reduce pain and improve movement, preventing long-term issues. Support and Awareness Educate patients and families about emotional challenges and connect them with support groups.

Limitation of the study

- Researcher was able to obtain 100 samples, even though the intended sample size for this investigation was 384 due to shortened duration of the study time. The sample size is insufficient to conclude that the findings apply to all mastectomy patients.
- A dissertation needs huge effort and time. The researcher worker is a student in 4th year, B.Sc. in physiotherapy with having not sufficient exposure to research activity. The present research is her first research work. As a result, some issues are coming to this thesis.
- Single-center study and small sample size data was collected from one hospital only, limiting the generalizability of the findings to wider population.

Reference

- Alagizy, H.A., Soltan, M.R., Soliman, S.S., Hegazy, N.N. and Gohar, S.F., 2020. Anxiety, depression and perceived stress among breast cancer patients: single institute experience. *Middle East Current Psychiatry*, 27(1), p.29.
- Beyaz, S.G., Ergonenc, J.S., Ergonenc, T., Sonmez, O.U., Erkorkmaz, U. and Altintoprak, F., 2016. Postmastectomy pain: a cross-sectional study of prevalence, pain characteristics, and effects on quality of life. *Chinese medical journal*, 129(01), pp.66-71.
- Melwani, R., Malik, S.J., Shakeel, S., Zafar, S., Khoso, M.Y. and Ali, S.N., 2020. Frequency of early post-operative complications of modified radical mastectomy 74 within period of four weeks. *International Journal of Research in Medical Sciences*, 8(5), p.1838.

Thank you

The image features the words "Thank you" written in a black, elegant cursive script. The text is centered horizontally and is surrounded by a collection of colorful, semi-transparent circles in shades of yellow, blue, pink, and green. The background is a light blue grid with a faint pattern of white hexagons and crosses, suggesting a medical or scientific theme.