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Preface

We would like to present, with great pleasure, the inaugural volume-8, Issue-2, February 2022, of a scholarly journal, *International Multispecialty Journal of Health*. This journal is part of the AD Publications series *in the field of Medical, Health and Pharmaceutical Research Development*, and is devoted to the gamut of Medical, Health and Pharmaceutical issues, from theoretical aspects to application-dependent studies and the validation of emerging technologies.

This journal was envisioned and founded to represent the growing needs of Medical, Health and Pharmaceutical as an emerging and increasingly vital field, now widely recognized as an integral part of scientific and technical statistics investigations. Its mission is to become a voice of the Medical, Health and Pharmaceutical community, addressing researchers and practitioners in below areas

Clinical Specialty and Super-specialty Medical Science:

It includes articles related to General Medicine, General Surgery, Gynecology & Obstetrics, Pediatrics, Anesthesia, Ophthalmology, Orthopedics, Otorhinolaryngology (ENT), Physical Medicine & Rehabilitation, Dermatology & Venereology, Psychiatry, Radio Diagnosis, Cardiology Medicine, Cardiothoracic Surgery, Neurology Medicine, Neurosurgery, Pediatric Surgery, Plastic Surgery, Gastroenterology, Gastrointestinal Surgery, Pulmonary Medicine, Immunology & Immunogenetics, Transfusion Medicine (Blood Bank), Hematology, Biomedical Engineering, Biophysics, Biostatistics, Biotechnology, Health Administration, Health Planning and Management, Hospital Management, Nephrology, Urology, Endocrinology, Reproductive Biology, Radiotherapy, Oncology and Geriatric Medicine.

Para-clinical Medical Science:

It includes articles related to Pathology, Microbiology, Forensic Medicine and Toxicology, Community Medicine and Pharmacology.

Basic Medical Science:

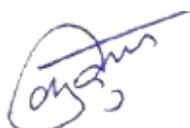
It includes articles related to Anatomy, Physiology and Biochemistry.

Spiritual Health Science:

It includes articles related to Yoga, Meditation, Pranayam and Chakra-healing.

Each article in this issue provides an example of a concrete industrial application or a case study of the presented methodology to amplify the impact of the contribution. We are very thankful to everybody within

that community who supported the idea of creating a new Research with *IMJ Health*. We are certain that this issue will be followed by many others, reporting new developments in the Medical, Health and Pharmaceutical Research Science field. This issue would not have been possible without the great support of the Reviewer, Editorial Board members and also with our Advisory Board Members, and we would like to express our sincere thanks to all of them. We would also like to express our gratitude to the editorial staff of AD Publications, who supported us at every stage of the project. It is our hope that this fine collection of articles will be a valuable resource for *IMJ Health* readers and will stimulate further research into the vibrant area of Medical, Health and Pharmaceutical Research.



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Endoxifen Response in Schizoaffective Disorder: A Case Series

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Abstract— Schizoaffective disorder has symptoms of both bipolar disorder and schizophrenia. Protein kinase C (PKC) activation is identified as to play a key role in both illnesses. Endoxifen, a potent inhibitor of the PKC signaling pathway, is effective in controlling acute bipolar mania at a dosage strength of 8 mg. Considering the PKC inhibitory activity of Endoxifen, we are presenting two patients with schizoaffective disorder who were administered with Endoxifen 8 mg to explore its role in providing better responses in patients.

Keywords— Schizoaffective disorder, Protein kinase, Endoxifen, bipolar mania.

I. INTRODUCTION

Schizoaffective disorder is a chronic illness with a prevalence of around 0.3%⁽¹⁾. Schizoaffective patients have features of either manic or depressive type, or in some cases, both. As per the DSM 5 diagnostic criteria, to be diagnosed with schizoaffective disorder at least two psychotic symptoms must be present as well as mood symptoms for a specific duration.

The symptoms of psychosis, which are identical to the primary criteria for schizophrenia, include ⁽²⁾:

- Hallucinations
- Delusions
- Disorganized thinking or behavior
- Disorganized speech
- Negative symptoms

The mood symptoms that must be present include:

- Mania: decreased need for sleep, high energy
- Racing thoughts
- Rapid speech
- Bizarre or risk-taking behavior
- Depression: feelings of sadness and worthlessness

For diagnosing a patient with schizoaffective disorder, at least two weeks of schizophrenic symptoms should be present without any mood symptoms.⁽²⁾ It has been evident from molecular studies that protein kinase C (PKC) plays a major role in pathogenesis of bipolar disorder as well as schizophrenia.^(3,4) Below, we are presenting two patients with schizoaffective disorder who were treated with tab Endoxifen, which works through PKC inhibition.⁽⁵⁾

II. CASE REPORTS

2.1 Case 1

Mr. A, a 36-year-old married male with class 12 education was brought to our clinic in October 2020 by his family members with complaints of hearing voices, suspiciousness, aggressive behavior, irritability, not able to sit at one place, and not able to maintain focused attention. The patient was diagnosed with schizoaffective disorder as per DSM 5 diagnostic criteria.

Young Mania Rating Scale (YMRS) and Brief Psychiatric Rating Scale (BPRS) were applied on the patient in October 2020. The patient scored 42 and 50, respectively on these scales and was initiated on tab Divalproex Sodium 1000 mg twice a day along with Haloperidol long-acting injection (200 mg), which was given deep intramuscular every 2 weeks. The patient came for follow-up after 1 month; both the scales were applied again but no improvement was reported in scores of YMRS and BPRS, which were 44 and 51, respectively. The dose of Divalproex sodium was increased with an additional 750mg added in the night. The patient came for follow-up after 2 months in January 2021 and his condition was deteriorating; he was not cordial, was aggressive, showed poor self-care with symptoms of hallucinatory voices and suicidal intent. YMRS and BPRS of the patient was 41 and 53, respectively and thus an additional 25 mg of tab Lamotrigine was prescribed to the patient. The patient was asked to follow-up after two months. During the follow-up visit in March 2021, no significant improvement was reported and thus the dosage of tab Lamotrigine was increased up to 100 mg and the patient was asked to follow-up in 10 days. During the follow-up visit, the condition of the patient had deteriorated and thus after taking consent from patient as well as family members, tab Endoxifen 8 mg was started once a day. Follow-up visit was scheduled after 15 days. At the time of initiation, YMRS and BPRS scores of the patient were evaluated at baseline, which was 40 and 54, respectively. He came back to the clinic after 15 days; he showed a mild improvement in aggressive behavior and hearing voices; YMRS and BPRS scores were 35 and 47, respectively and thus the patient was asked to come back for follow-up after 2 months. The patient returned for follow-up in the month of June 2021 and was found to be stable on these medications; his YMRS and BPRS were 26 and 35, respectively. The patient was advised to come after 3 months. He came back in the month of October 2021 and as he was doing well on medication, tab Lamotrigine was stopped; his YMRS and BPRS were 16 and 28, respectively. On his next follow-up in December 2021, Haloperidol long-acting injections were reduced from 200 mg to 150 mg once in two weeks; all other medications were asked to be continued. During this visit, his YMRS and BPRS scores were 10 and 19, respectively.

TABLE 1
REDUCTION IN YMRS AND BPRS SCORES AFTER INITIATION OF TAB ENDOXIFEN (8 MG) (CASE 1)

S.No.	Time since initiation of Endoxifen	YMRS	BPRS
1.	April 2021 (0 month 0 day)	40	54
2.	15 days	35	47
3.	2 months (June 2021)	26	35
4.	6 months (October 2021)	16	28
5.	8 months (December 2021)	10	19

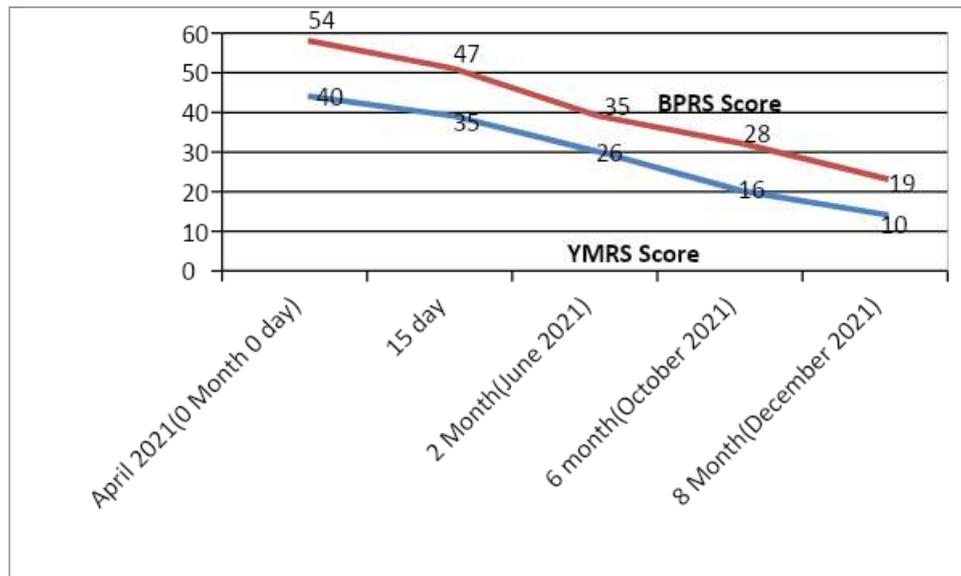


FIGURE 1: Reduction in YMRS and BPRS scores after initiation of tab Endoxifen (8 mg) (Case 1)

2.2 Case 2:

Mrs. B, a 41-year-old married female with a Bachelor's degree in Arts came to our clinic in June 2020 with complaints of hearing voices, suspiciousness, poor self-care, irritability, distractibility, reckless behavior, and over-familiarity. The patient was previously under treatment from another psychiatrist for 4 years and upon enquiring with family members it was revealed that the patient was having similar complaints in the past too. On further enquiry, they mentioned that the patient showed aggressive behavior, over-familiarity and disturbed sleep for some time, but for the past 15-20 days, she showed psychotic symptoms with complaints of suspiciousness, hearing voices, disorganized speech and poor self-care. The patient was diagnosed with schizoaffective disorder as per DSM 5 diagnostic criteria. The patient was on tab Lithium 300 mg BID along with tab Olanzapine 10 mg twice a day and was on the same treatment for the past 6 months from another psychiatrist. In June 2020, when the patient was brought to our clinic, her YMRS and BPRS scores were 38 and 49, respectively. Doses of tab Lithium were titrated to 400 mg twice a day and all other medicines were asked to be continued. The patient returned for follow-up after one month in July 2020; she did not show any improvement while being on these medications and her YMRS and BPRS scores were 37 and 47, respectively. Along with these tablets, tab Risperidone 2 mg BID and THP 2 mg were added and the patient was asked to come for a follow-up visit after 3 months. The patient came for follow-up in November with a mild improvement on her YMRS and BPRS scores of 34 and 43, respectively. The patient was called for follow-up again after 3 months in February 2021; her condition had worsened and she complained of hearing voices, irritability, and reckless behavior. Her dosage of Lithium was titrated to 450 mg twice a day and she was called for follow-up in the month of April 2021. During the visit, the patient complained of suspiciousness, hearing voices, over-familiarity to unknown people, increase in energy and a decreased need for sleep, and restlessness. Akathisia was suspected and tab Risperidone was stopped; after taking consent from patient and her family members, tab Endoxifen 8 mg half-tablet was prescribed to be taken at night. At the time of initiation of Endoxifen, YMRS and BPRS scores of the patient were 37 and 45, respectively. The patient was called for follow-up after one month in May and during the visit, a slight improvement was observed with her YMRS and BPRS scores at 33 and 42, respectively. The dosage of Endoxifen was increased to 8 mg and she was called for follow-up in June 2021. The patient was responding well to this medication and akathisia was resolved on stopping Risperidone. The patient was called after two months in August 2021; during the visit, she showed improvement on these medications and her YMRS and BPRS scores were 28 and 37, respectively. The next follow-up was scheduled after 3 months in November 2021, and she was found to be stable on medication; her YMRS and BPRS scores also reduced to 19 and 26, respectively.

TABLE 2
YMRS AND BPRS SCORES AFTER THE INITIATION OF ENDOXIFEN IN PATIENT NO. 2

S.No.	Time since initiation of Endoxifen	YMRS	BPRS
1.	April 2021 (0 month)	37	45
2.	May 2021 (1 month)	33	42
3.	June 2021 (2 months)	30	39
4.	August 2021 (4 months)	28	37
5.	November 2021 (7 months)	19	26

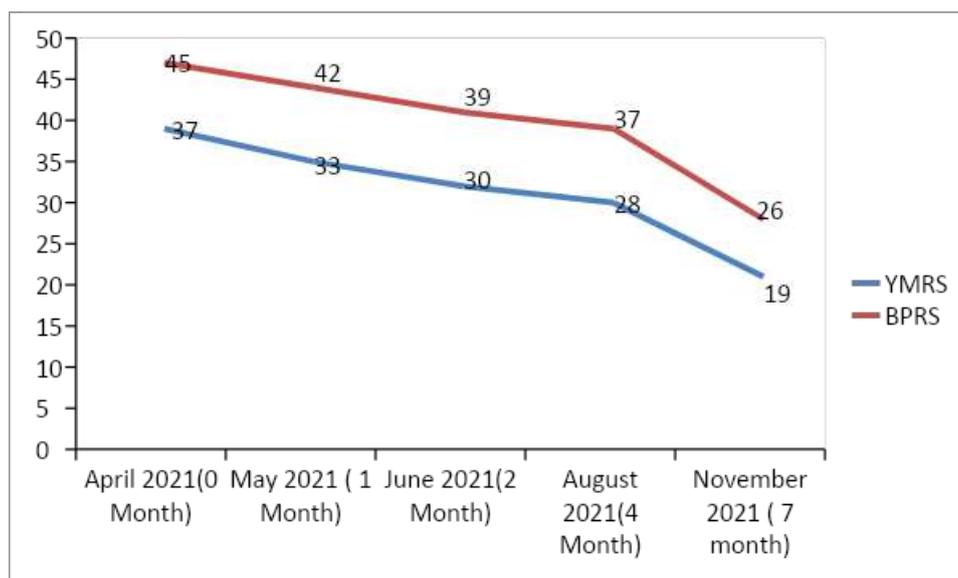


FIGURE 2: YMRS and BPRS scores after the initiation of Endoxifen in patient no. 2

III. DISCUSSION

Hyperactivation of PKC is seen among patients of both schizophrenia and bipolar disorders^(3, 4) while looking at schizoaffective disorders, symptoms of both the illnesses are present. Hence, we tried tab Endoxifen in these patients as it works by inhibition of PKC.⁽⁶⁾

Psychostimulants like amphetamine and methamphetamine work through PKC activation, which is responsible for the pathogenesis of bipolar disorder as well as schizophrenia.^(7,8) As Endoxifen works through PKC inhibition, it may be the reason Endoxifen is effective in the treatment of schizoaffective disorder.⁽⁶⁾

In a study conducted by Ahmad A et al., 49% bipolar patients showed improvement in their symptoms with Endoxifen over a duration of 3 weeks.⁽⁶⁾ Though long-term studies are lacking on Endoxifen, its tolerability profile encourages its use especially in patients where current treatment options bring challenging side effects. In the female patient's case presented above, akathisia was suspected and tab Respiridone was stopped. Later on, Endoxifen was added not just because of its efficacy due to PKC inhibition but also because extrapyramidal symptoms have not been reported with this molecule till now. Further, Endoxifen is also a selective estrogen receptor and parent molecule of Tamoxifen, which is well-known for its use in the treatment and prevention of breast cancer due to its anti-estrogen activity. Endoxifen is safe, considering studies conducted evaluating the long-term use of Tamoxifen for durations as long as 5–10 years (ATLAS STUDY with 12,894 women). In the case of the female patient mentioned above, it's worth noting that there were no sexual side effects observed with Endoxifen 8 mg over a duration of 8 months.

Endoxifen might also bring promising benefits of reducing overall pill burden and injectable usage, which needs to be evaluated further. In the male patient's case presented above, after the usage of Endoxifen over a longer period of time, along with improvement in symptoms, there was no longer a need to continue Lamotrigine and the dosage of Haloperidol had also eventually come down, which was a relief for the patient.

IV. LIMITATION

This is a case series, so the data generated from here cannot be generalized on the whole population, thus a cross-sectional or longitudinal study with longer durations and larger number of subjects will give a better insight on this topic.

V. CONCLUSION

Currently, no clinical trial has been done with Endoxifen on schizoaffective patients, and we prescribed Endoxifen to patients who were diagnosed with schizoaffective disorder and not getting better results with other medications. In our 2 patient cases with schizoaffective disorder, Endoxifen 8mg tablets reduced the severity of symptoms. YMRS score in patient 1 improved from 40 to 10 while in patient 2, it improved from 37 to 19. BPRS score too showed improvement from 54 to 19 in patient 1 and 45 to 26 in patient 2. Due to good tolerability profile and better efficacy, Endoxifen was continued beyond 6 months and both the patients have maintained well on treatment without any adverse events being reported.

Though large randomized trials with Endoxifen are lacking, it can be a worthy option to explore in schizophrenia as well. Further studies are required to generate evidence about efficacy and safety of Endoxifen for providing an alternative treatment for schizophrenic and schizoaffective disorder patients.

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A Study of structured teaching programme on active management of third stage of labour among staff nurses working in DR. Tandon Nursing college and Test tube IVF center at Agra (U.P)

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Abstract— *The third stage of labour is the period of time from the birth of the baby until the placenta is delivered. During this stage, the uterus contracts & placenta begins to separate from the uterine wall. This stage lasts between 5 and 15 minutes. After 30 minutes, it is considered prolonged indicating potential problem. If the uterus is atonic and does not contract normally, several bleeding occurs then to anaemia which affects breast feeding and may leads to septicemia and death. A series of procedures conducted during this stage are collectively called as “Active Management of Third stage of Labour” (AMTSL) which consists of interventions designed to speed the delivery of placenta by increasing the uterine contractions and postpartum hemorrhage by adverting uterine atony.*

Maternal mortality is perhaps the most important cause of loss of healthy life years and cause that could be readily reduced through improved quality of care. One of the reason for maternal mortality is the poor performance health care personnels in the management of labour and childbirth.

Keywords— *Teaching Programme, Test tube center, AMTSL, Test tube baby.*

I. INTRODUCTION

Data analysis is a dynamic process that involves interaction between the researcher and his experience of the data, whether the data is communicated orally or in writing. During this process, the researcher explores personal feelings and experiences that may influence the study and integrates this understanding into the study.

This chapter represents the analysis and interpretation of data collected from 60 staff nurses working in maternity wards of Dr.kamlesh Tandon hospital IVF Center and research institute to assess the effectiveness of structured teaching programme on knowledge regarding Active management of third Stage of labour (AMTSL). The main objective of the analysis is to reduce the data to a manageable and interpretable form, so that the research problem can be studied and tested. The investigator administered structured knowledge questionnaire for staff nurses working in maternity wards of dr.kamlesh tendon hospital to collect the data.

The data collected were analyzed according to the plan for data analysis which included both descriptive and inferential statistics. The data findings have been tabulated according to the plan for data analysis and interpreted under the following study objectives.

The following are the study objectives:

- 1) To assess the knowledge of staff nurses regarding the active management of III rd stage of labour by pre-test.

- 2) To prepare and introduce structured Teaching programme on AMTSL to staff nurses.
- 3) To evaluate the effectiveness of structured teaching programme regarding AMTSL through post-test knowledge score.
- 4) To find out the association between pre-test knowledge scores with selected demographic variables.

To achieve above objectives the collected data were analysed interpreted and presented.

1.1 Need of the Study

Severe bleeding is the single most cause of maternal deaths worldwide. Postpartum hemorrhage is un predictable and a rapid cause of maternal death. More than half of all maternal deaths occur within 24 hours of delivery. It is estimated that, worldwide 140,000 women die of PPH each year –one every 4 minutes. In addition to death serious morbidity may follow PPH is one of the most frightening and challenging emergencies faced by the midwife. It should be fought on an emergency basis as the fire-fighters fighting a blazing inferno; otherwise it would snuff out the lives of many young women.

Since 1987, the safe motherhood initiative has stated that, maternal mortality is an issue of health infrastructure. Active management of third stage of labour (AMTSL) is highly measurable, evidence based and life saving aspect of the health infrastructure. Given that, post partum hemorrhage is a leading cause for maternal mortality. There is important and urgent need for information on current practice regarding AMTSL.

1.2 Hypothesis

H₁: The mean post-test scores of subjects exposed to STP will be greater than their mean pre-test scores measured by structured knowledge questionnaire at 0.05 levels of significance.

H₂: There will be significant association between pretest knowledge score and selected demographic variables.

II. MATERIALS AND METHOD

This evaluative approach was considered appropriate for the present study which was carried out on 60 deliveries in Dr. Tandon Nursing college and test tube IVF Center. Agra (U.P)

The main focus of the study was to test the knowledge of staff nurses on Active management of Third stage of labour (AMTSL) through pretest and post test which are depicted as O₁ & O₂ respectively. The experimental variable administered was structured teaching programme on knowledge of staff nurses regarding AMTSL. The schematic representation of research study design used by the investigator is given below.

TABLE 1
ONE GROUP PRE-TEST POST TEST DESIGN

Group	Pretest	Intervention	Posttest
Experimental group (staff nurses)	O ₁	X	O ₂

Schematic representation of research design.

Key:

O₁ =Pre test for assessment of knowledge through structured questionnaire. X = Intervention through structured teaching programme.

O₂ = post test for assessing the knowledge through structured questionnaire

Refers to the area where the study is conducted. The present study was conducted in maternity wards which includes antenatal ward, postnatal ward, OBG operation theater, OBG OPD, Sterilization ward and gynaec wards of Dr.Tandon nursing college and test tube IVF Center The target population of the present study was the staff nurses working maternity wards of Dr.Tandon nursing college and test tube IVF Center. The technique used was non probability sampling- convenient sampling.

TABLE 2
FREQUENCY AND PERCENTAGE DISTRIBUTION OF STAFF NURSES ACCORDING TO DEMOGRAPHIC DATA

Sl. No.	Demographic data	Frequency (F)	Percentage (%)
1.	Age in years		
1.1	21-30	32	53.3
1.2	31-40	16	26.7
1.3	41-50	10	16.7
1.4	51-60	2	3.3
2.	Gender		
2.1	Male	3	5.0
2.2	Female	57	95.0
3	Qualification		
3.1	Diploma in nursing	48	80.0
3.2	B.Sc. Nursing	9	15.0
3.3	M.Sc. Nursing	3	5.0
4.	Clinical experience (years)		
4.1	<5year	33	55
4.2	5-10years	12	20
4.3	10-15years	10	16.7
4.4	>15years	05	8.33
5.	Training programme attended		
5.1	Yes	14	23.3
5.2	No	46	76.7

The data presented in table (2) shows that maximum number 32 (53.3%) of staff nurses belongs to the age group of 21-30 years and minimum 2 (3.3%) staff nurses were belongs to 50-60 years of age group.

Majority of staff nurses 57 (95%) were females; while a minimum 3 (5.0%) were male. Most of the staff nurses 48(80.0%) were diploma (GNM) holders, 9 (15%) were graduates (B.SC) and 3 (5.0%) were M.Sc nursing holders. Majority of staff nurses 33 (55.0%) had a clinical experience of less than 5 years, while 5 (8.33%) had experience above 15 year in the labour room.

TABLE 3
DISTRIBUTION OF STAFF NURSES ACCORDING TO MEAN AND STANDARD DEVIATION OF PRE-TEST SCORE AND POST-TEST SCORE REGARDING THE KNOWLEDGE ON AMTSL (n=60)

Sl. No.	Area of knowledge	Maximum score	Pre text scores			Post test scores			Mean Difference	%	T	P-Value
			Mean	±SD	%	Mean	±SD	%				
1	Review of Physiology	5	2.7	0.7	54%	4.1	0.6	82%	1.4	28%	12.98	<0.05(S)
2	Components of AMTSL	20	10.1	1.6	50%	17	0.8	85%	6.9	35%	34.35	<0.05(S)
3	Complications of Third Stage of labour	10	4.5	1.4	45%	9	1	90%	4.5	45%	25.7	<0.05(S)

Paired t-test, table value – 2.00 P < 0.05 significant

Data presented in the above table 3 shows that, maximum mean in gain of knowledge on components of AMTSL i.e. 6.9 and minimum gain of knowledge was 1.4 regarding review of physiology of third stage of labour.

III. FINDING

The present study revealed that the mean percentage obtained for overall knowledge in the pre-test was (17.3) and in post-test (30.1) the gain mean for overall knowledge was (12.8), with 't' value at 'df' 59= 37.78 which was highly significant at $p < 0.05$. This showed the effectiveness of structured teaching programme on active management of third stage of labour.

IV. CONCLUSION

The present study assessed the knowledge of staff nurses regarding the knowledge on AMTSL and found that only (13) had good knowledge and (23) had average knowledge and (24) had poor knowledge in the pre-test. The overall mean percentage in the pre-test was (17.3) with the standard deviation (3.1) and in the post-test it was (30.3) with the standard deviation (1.4) with a positive difference of (12.8) and (2.6) respectively. This showed that there was a significant improvement in knowledge of staff nurses in the active management of third stage of labour. Thus providing that the structured teaching programme was effective method for improving the knowledge of staff nurses.

The conceptual framework used for study was based on Modified Ernestine Weidenbach's helpings art of clinical nursing theory. A quasi-experimental approach was adopted for this study.

A total of 60 staff nurses were selected by convenient sampling method. The study was adopted one group pre-test post test design. Data were collected by using structured questionnaire method. Impact knowledge to staff nurses by using structured teaching programme.

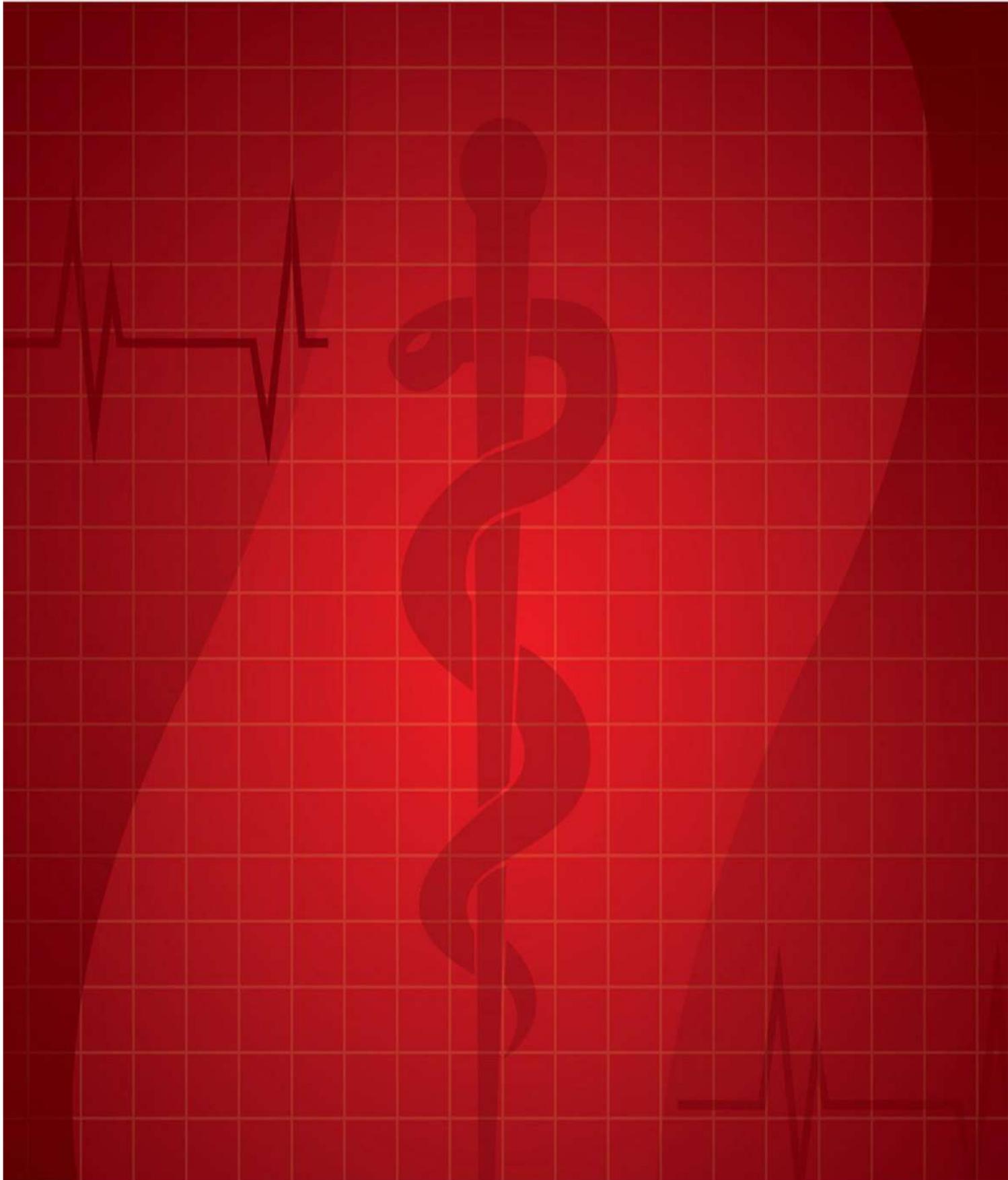
The study revealed that staff nurses gained knowledge after the structured teaching programme. Analysis data shows that the post-test knowledge score has significantly higher than the pre-test knowledge score at $P < 0.05$ level of significance.

The present study assessed the knowledge of staff nurses regarding knowledge on active management of third stage of labour and found that only 13(22%) had good knowledge 23(38%) had average knowledge and 24 (40%). had poor knowledge in the pre-test. The overall mean percentage in the pre-test was 17.3(49%) with standard deviation of 3.1 and in the post-test it was 30.3 (86%) with the standard deviation (1.4) with a positive difference of (12.8) and (2.6) respectively. This showed that there was a significant improvement in knowledge of staff nurses in the active management of third stage of labour.

Then the investigator concluded that the structured teaching programme was a good method of conveying information to staff nurses and it is very effective in order to gain knowledge.

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