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Effectiveness of Application of Moringa Paste on face Acne among Adolescent Girls

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ABSTRACT

Introduction: Teenagers, adults, and pre pubertal all get acne, which can seriously damage their social interactions and sense of self. A person's decision to seek treatment for acne is frequently influenced by cultural and societal factors, in addition to the condition's severity. These factors greatly influence how people view and manage their acne. A key component of therapy's overall efficacy is patient adherence to the prescribed course of action.

Methodology: Present study was conducted by using quantitative approach with a quasi-experimental research design with a Non probability purposive sampling technique. Sample size was calculated by using power analysis. The sample comprised of Total 50 adolescent girls with acne each 25 in experimental and 25 in control group aged between 13-16 years were taken for the study. Girls who are not willing for participate and girls who are already on treatment of acne were excluded from the study. Ethical committee permission and consent from the samples and parent were taken before conducting the study. Data collection tool had two sections 1: Demographic Variables: It was developed together necessary information such as Age, education, family income, diet pattern and any received treatment on acne section 2: In this study the researcher checked the level of Acne by using investigators global assessment (IGA) of acne severity. The level of acne is scored as clear, mild, moderate and severe

Result: In comparison of control and experimental group after application of Moringa paste. It is seen that post application of Moringa paste on face acne's p value is 0.0003. The result shows that there was a significant different between pre – test and post – test score of experimental group. The obtained 't' value is 3.8430 is greater than the table value. Its interference that Moringa paste is effective in reducing face acne among adolescent girls.

Conclusion: The adolescent girls had mild, moderate and severe acne before application of Moringa paste. After application of Moringa paste, the finding of study revealed that application of Moringa paste was effective in reducing acne among adolescent girls.

1. INTRODUCTION

Teenagers, adults, and pre pubertal all get acne, which can seriously damage their social interactions and sense of self. A person's decision to seek treatment for acne is frequently influenced by cultural and societal factors, in addition to the condition's severity. These factors greatly influence how people view and manage their acne. A key component of therapy's overall efficacy is patient adherence to the prescribed course of action.[1]

Most people associate acne mostly with adolescents as a skin condition. Recent studies show that adult patients with acne are becoming more common, particularly inwomen.[2]

The prevalence of acne was 93.3%, while for girls it was 92.0%. Of those with acne,14% had moderate to severe cases. Among those who had a family history of acne, the prevalence of moderate to severe acne was 19.9%, whereas it was 9.8% in those who did not.The likelihood of acne severity rose as the number of family members with a history of acne rose. The severity of acne was impacted by a mother who had a history of acne.[4]

2. MATERIALS AND METHODS

Present study was conducted by using quantitative approachwith a quasi-experimental research design with a Non probability purposive sampling technique. Sample size were calculated by using power analysis. The sample comprised

of Total 50 adolescent girls with acne each 25 in experimental and 25 in control group aged between 13-16 years were taken for the study. Girls who are not willing for participate and girls who are already on treatment of acne were excluded from the study. Ethical committeepermission and consent form the samples and parent was taken before conducting the study.Data collection tool had two sections 1: Demographic Variables: It was developed together necessary information such as Age, education, family income, diet pattern and any received treatment on acne section 2: In this study the researcher checked the level of Acne by using investigators global assessment (IGA) of acne severity. The level of acne is scored as clear, mild, moderate and severe

Reliability of the tool was done by interrater method.

Study participants: The sample comprised of Total 50 adolescent girls with acne each 25 in experimental and 25 in control group aged between 13-16 years were taken for the study. Girls who are not willing for participate and girls who are already on treatment of acne were excluded from the study

Intervention: The duration of the intervention was a total of 15days. During this, The Moringa paste was applied on the face of the client for 7 days. Moringa paste prepared in front of client and applied once a Morning on the first day, before application of Moringa paste assessed the level of acne. The procedure repeated and continues from 1st day to 7th day.

Statistical Analysis: The demographic variables computed by using descriptive and inferential statistics and percentage distribution used to determine demographic variables. Mean and standard deviation used to assess the Pre intervention and Post intervention in acne. Paired 't'test used

3. RESULT

Table 1: Description of samples based on their socio-demographical variables in terms of frequency and percentage n= 25+25

Sr. No.	Demographic Variables		Experimental Group		Control Group	
			F F	%	f F	%
1.	Age in years	13 – 14	14	56%	7	28%
		15 – 16	11	44%	18	72%
2.	Education	8th std	4	16%	5	20%
		9th std	9	40%	11	44%
		10th std	12	48%	9	36%
3.	Family income (in Rs.)	Below 10,000	11	44%	12	48%
		10,001 – 15,000	10	40%	13	52%
		15,001– 20,000	4	16%	0	0%
		20,001 and above	0	0%	0	0%
4.	Diet pattern	Veg	9	16%	5	20%
		Non- veg	16	64%	20	80%
5.	Have you received any treatment on acne	Yes	0	0%	8	32%

	Magazine News paper Mass media	No	25	100%	17	68%

Table No. 2: Analysis of data related to level of Face Acne before intervention in experimental and control group. n= 25+25

Observation		**Experimental Group**		**Control Group**	
		Day 1		**Day 1**	
		F	%	f	%
Level of acne on skin	Clear – 0	0	0%	0	0%
	Mild – 1	5	20%	6	24%
	Moderate - 2	9	36%	9	36%
	Severe – 3	11	44%	10	40%

The data represents the face acne among adolescents before application of moringa paste. According to day 1, most of the girls 11 (44%) had severe, 9 (36%) had moderate and 5 (20%) had mild level of face acne in experimental group. According to day 1, most of the girls 10 (40%) had severe, 9 (36%) had moderate and 6 (24%) had mild level of face acne in control group. It concluded that Most of adolescent girls suffering severe and moderate level of acne on face before application of Moringa paste in experimental and control group.

Table No. 3: Analysis of data related to level of Face Acne after intervention in experimental and control group. n= 25+25

Observation		**Experimental Group**		**Control Group**	
		Day 8		**Day 8**	
		F	%	f	%
Level of acne on skin	Clear – 0	4	16%	0	0%
	Mild – 1	9	36%	6	24%
	Moderate - 2	12	48%	9	36%
	Severe – 3	0	0%	10	40%

According to day 8, 4 (16%) had clear, 9 (36%) had mild, moderate 12 (48%) had severe level of face acne in experimental group. According to day 8, most of the girls 10 (40%) had severe, 9 (36%) had moderate and 6 (24%) had mild level of skin acne in control group.

Hence It is clear that, Level of acne on skin among adolescents after application of Moringa paste has clear and mild in experimental group.

Table No. 4: Comparison of post- test score in experimental group and control group among adolescents n= 25+25

Post- test	Mean	S.D.	t- value	p- value	Significance
Experimental Group	1.32	0.7483	3.8340	0.0003 < 0.05	Significant
Control Group	2.16	0.8			

According to day 8 (post- test) it is observed that, The mean level of effect of Moringa paste of acne on skin is 1.32 and S.D. is 0.7483 in experimental group. The mean level of effect of Moringa paste of acne on skin is 2.16 and S.D. is 0.8 in control group After application of Moringa paste on skin with acne, t- value is 3.8340 which is more than 2 which is considered as significant and p- value is 0.0003 which is less than 0.05 which is considered as statistically significant It shows that there is significant difference is found between pre- test of level of face acne after application Moringa paste according to day 7 in experimental and control group.This reveals the application of Moringa paste on face acne among adolescents was effective according to post- test in experimental group.

4. CONCLUSION

In the present study effectiveness of application Moringa paste on level of acne was assessed. In experimental group application Moringa paste was done and was assessed using Investigators Global Assessment (IGA) of acne severity scale. Finding of the study clearly indicates that level pf acne is significantly less in experimental group than in the control group. Hence the null hypothesis is rejected at 0.05 level of significance.

5. DISCUSSION

This study aimed to know the effect of Moringa paste on acne. Finding of present study has been discussed as per the objectives of study.

Demographic variables shows that prevalence of acne was more among adolescent girls who has –

Age - In experimental group, among the 25 participants 14 (28%) were in age group 13 – 14 and 11 (44%) were in age group 15 – 16

In control group, among the 25 participants 7 (28%) were in age group 13 – 14 and 18 (72%) were in age group 15 – 16

Education - In experimental group, among the 25 participants 4 (16%) had studying in 8^{th} std, 9 (36%) had studying in 9^{th} std and 12 (48%) had studying in 10^{th} std.

In control group, among the 25 participants 5 (20%) had studying in 8^{th} std, 11 (44%) had studying in 9^{th} std and 9 (36%) had studying in 10^{th} std.

Family income - Majority of the adolescents families 11 (44%) were getting low income level (Below 10, 000) whereas none of the adolescents families had highest income level (20,000 and above) in experimental

Majority of the adolescents families 13 (52%) were getting average income level (10,000 – 15,000) whereas none of the adolescents families had highest income level (15,000 – 20,000) and (20,000 and above) in control group.

Diet pattern - Maximum adolescents 16 (64%) diet pattern had non- veg in experimental group.

Maximum adolescents 20 (80%) diet pattern had non- veg in control group.

Any received treatment on acne - In experimental group no one received treatment on acne, where as in control group 8 (32%) girls have received treatment on acne and 17 (68%) do not received any treatmet.

Analysis Of Data Related To Level Of Face Acne Before Intervention In Experimental And Control Group.

In pre-test there are 20% samples having mild level, 36% had moderate level and 44% had severe level of Face acne in experimental group before the application of moringa paste. Whereas in control group 24% had samples having mild level, 36% had moderate level and 40% had severe level of Face Acne in control group. these finding lined with Al Mashat, Salma, Noura Al Sharif (2019) A cross-sectional, self-administered questionnaire study was conducted on a population in Jeddah. 311 responded to the questionnaire they think that more information about acne would be helpful. Diet 28.4% had the highest percentage as a cause of acne followed by bacteria 20.7% then poor hygiene 15.4% while 28.4% did not know the cause. Stress 58.4% and certain food 34.1% were the most believed factors to aggravate acne. Repeated frequent facial wash was

thought to improve acne in 58.4%, while 63.3% thought it is a curable disease. The younger age group thought that acne would cause depression and increase suicidal attempts more than individuals above 25 years of age. The study revealed that there is an actual defect in the general knowledge about acne regarding its causes and treatment.

After Intervention In Experimental And Control Group.In post-test, 16% samples had clear level Face Acne, 36% samples has mild level of Face acne and 48% sample has moderate level of face acne in experimental group after application of moringa paste. Whereas in control group, 24% samples has mild level of Face acne, 36% samples has moderate level of face acne and 40% samples has severe level of face acne. Hence it is clear that, majority of the samples having clear and mild level of Face acne among adolescent girls after application of Moringa paste in experimental group. These findings where supported by Swati Siddheshwar Londhe1, Amol Arun Joshi(2022) · The research was done by K. T. Patil College of Pharmacy, Siddharth Nagar, Barshi Road, Osmanabad, Maharashtra, INDIA. . The various gel are used in dermatological for acne.The addition of ambī haldi makes this recipe active. Because of its blocking effect, the primary function is to boost the metabolism.It was prepared by using extraction method.24 volunteers were selected. A determined amount of the prepared mask is applied in combination with purified water and honey separately with ambe halad for 30 days.The purpose of the clay mask formula has been successful with good results.along with acne Rashes and blemishes were also seen to remove marks after 20-30 day, The formulation after being tested on healthy female volunteers, the solution produced amazing results. To study scientifically verified that herbal clay face pack having enough potential to give efficient glowing effect on skin.

In post-test experimental group has mean of 1.32 with SD of 0.7483, where as in control group has mean of 2.16 with SD is 0.8. After application of Moringa paste on Face acne t-value is 3.8340 and P value **is 0.0003,** It shows that there is significant difference is found between pre- test and post - test of level of face acne after application of Moringa paste according to day 1 and day 8 in experimental and control group. This reveals the application of Moringa paste on Face acne among adolescents was effective according to pre-test and post test in experimental group

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