

Study on the Effects of Body Cathexis and the Nutritional status of Adolescents girls in Churachandpur district, Manipur

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Abstract—Body Cathexis scale is a psychometric tool to measure the level of satisfactory and dissatisfactory of the body appearance. Body Cathexis can significantly influence the eating behaviors which reflect on their nutritional status. Present nutritional status of adolescents is either under and over-nutrition caused due to unhealthy eating behavior and lack of physical activity. Unhealthy snacking behaviors may lead to nutritional deficiencies altering their nutritional status. Hence, healthy snacking behaviors can contribute to satisfactory Body Cathexis among adolescents. It is a descriptive study of 251 adolescent girls aged between 14-16 years (middle adolescence) and 17-19 years (late adolescence) were selected by stratified sampling technique. Data was collected by means of structured questionnaire. Majority (89.2%) of the respondents from late adolescents had partial satisfaction towards their body appearance. From the Body Cathexis score reveals that the entire late adolescent underweight sample had partial satisfaction. Majority (90.2%) from middle adolescents had ‘partial satisfaction’ with their body condition, nevertheless of consuming healthy snacking habits. Majority of the adolescent girls had ‘partially satisfaction’ in their body appearance with healthy snacking habits and they are optimally nourished.

Index Terms— Body Cathexis scale, Snacking behaviors, nutritional status, adolescent, girls

1. INTRODUCTION

According to WHO (2015), “Adolescence is the period in human growth and development that occurs from 10 to 19 years” [1]. It is a period of intervening between childhood and adulthood [2]. Adolescents required increased nutrients as it is a stage of rapid growth and development [3]. To meet the adequate nutrients, adolescents need to consume a balanced diet that includes Carbohydrates, protein, macro and micro-nutrients.

During this period, adolescent’s attention is mostly focused on their body appearance hence there is a change in their eating behavior. They switch their regular meals to snacking habits in order to have a pleasing appearance. They mostly choose snacks based on taste over nutrition; and also frequently choose salty, crunchy foods as snacks over healthier alternatives [4]. This snacking behavior is influenced by peer pressure, peer acceptance, spending on digital time, watching TV, etc [5, 6]. The widespread interest in the pleasure of body appearance in the study field of snacking behaviors entails high demands to distinguish the concepts of body satisfaction. Body satisfaction scale was first developed by Second and Jourard (1955, p.243) and is defined as “degree of feeling of satisfaction or dissatisfaction with the looks and functions of the body”. Discontent with appearance can cause a high risk of maturation, determination and relapse of eating disorder [7, 8]. Understanding the level of satisfaction or dissatisfaction in the body appearance appearance-Body Cathexis Scale (BCS) has been used for adolescents to measure their opinion about the feeling of their individual towards the body appearance [9].

Body Cathexis is also believed to be related to self identifiable and feeling of satisfaction or dissatisfaction in their appearance and associated with anxiety, insecurity that can cause snacking behaviors leading to poor nutritional status. Occurrence and lack of awareness in eating behaviors leads to obesity which is the risk factors and for future problems in adolescents. Hence, community-based interventions programs should amalgamate adolescents to improve their awareness about accepting body appearance and healthy snacking behavior to prevent obesity and its complications.

2. MATERIALS AND METHODS

The study was conducted on adolescent’s girls from 10 institutions in Churachandpur district, Manipur. For the present study, the samples were selected on stratified Random sampling from class 9 to class 11. Two groups-Middle adolescence girls (14-16 years) and late adolescence girls (17-19 years) was identified. The sample size was derived as N=251, which includes 112 middle adolescence and 139 late adolescence.

The tools selected were self-administered questionnaire which consists of the questions regarding socio-demographic profile standardized tool, Body Cathexis 46-scale, snacking behaviors tool and anthropometric analyses on height and weight to derived BMI.

3. RESULTS

Table 1: Socio-demographic distribution of respondents (N=251)

Parameters	Middle Adolescents (14-16 years)	Late Adolescents (17-19 years)
	(n=112)	(n=139)
Types of Family	Value in Parenthesis and Percentage	
Nuclear family	73 (65.2)	88(63.3)
Joint family	39(34.8)	51 (36.7)
Occupations of parents		

Both Employed	66 (58.92)	70 (50.4)
Only father employed	28 (25)	44 (31.7)
Only mother employed	08 (7.14)	18 (12.9)
None	10 (8.92)	07 (5.04)

The above table 1 describes the type of family, majority middle 73(65.2%) and late 88(63.3%) adolescents belonged to Nuclear family. Nuclear families are more prevalent in rural areas due to factors like low economic background which increased the migration of family from their home town for employment opportunities [10]. The present study was conducted in rural tribal areas.

Most middle adolescents 66(58.92%) and late adolescents 70 (50.4%) of the respondents both parents were employed.

Table 2: Frequency distribution of Body Cathexis 46-Scales (N=251)

Sl.no.	Body Cathexis 46-scale category	Middle adolescents n=112	Late Adolescents n=139
		Value In Percent	
1.	Partially Satisfaction	84.82	89.2
2.	Satisfaction	15.18	10.8

Majority (89.2%) of the late adolescents BCS scores was ‘Partially Satisfaction’. This may be due to the excessive use of social media which contribute to low perseverance of their body cathexis images [11] because in social media, adolescent’s are frequently exposed to unrealistic beauty standards and idealized images of their role models leading them to imitate their ideals [12-14]. These may be due to peer pressure, culture and social critics [15, 16].

Table 3: Frequency distribution of Body Cathexis 46-scales based on BMI (N=251)

BMI \ BCS	Middle Adolescents N=112			Late Adolescents N=139		
	Underweight n=07	Normal n=87	Overweight n=18	Underweight n=14	Normal n=107	Overweight n=18
	Value In Percent					
Partially Satisfaction	85.76	82.74	94.44	100	86.93	94.4
Satisfaction	14.3	17.24	5.55	00	13.08	5.88

All the Underweight late adolescents scored ‘partial satisfaction’ in Body Cathexis score. Among Normal-weight, 17.23 percent of middle and 13.08 percent of late adolescent girls had ‘satisfaction’. Overweight individuals in both groups (middle adolescents 5.55 percent and late adolescents 5.88 percent) had ‘partial satisfaction’. Adolescents were also partially satisfied with their body image in spite of having normal BMI due to comparison of their own bodies with slim characters portrayed in the media. This causes them to various psychological and emotional difficulties like low self-esteem, depression, anxiety leading to eating disorders [17, 18].

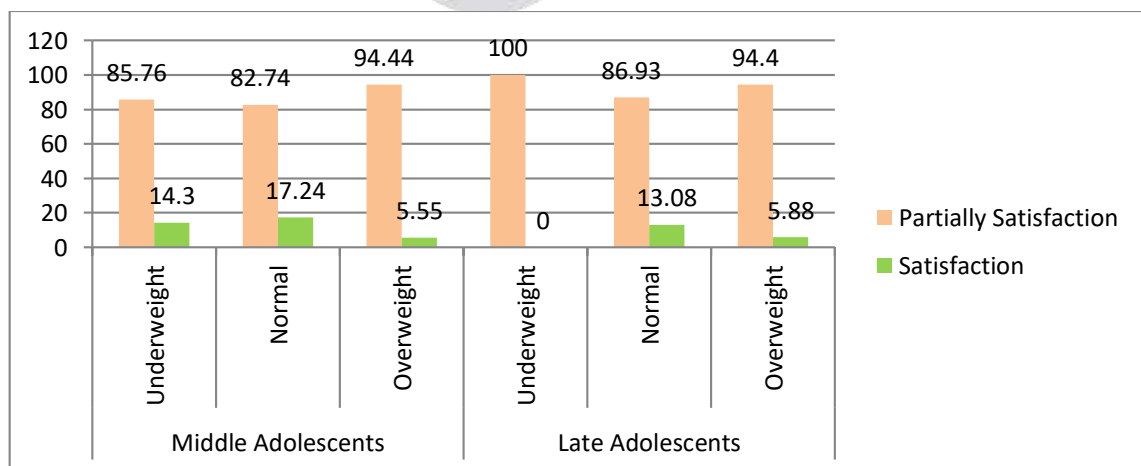


Figure 1: Distribution of Body Cathexis based on BMI

Table 4: Mean and Standard Deviation of BMI based on BCS

BMI v. s BCS	Middle adolescents (n=112)			Late adolescents (n=139)		
	Underweight	Normal	Overweight	Underweight	Normal	Overweight
	Mean± S.D	Mean± S.D	Mean± S.D	Mean± S.D	Mean± S.D	Mean± S.D
Partially Satisfaction	17.6±0.52	21.91±2.95	26.65±1.60	17.47±1.18	21.81±2.77	26.82±4.74
Satisfaction	00	21.76±1.66	00	00	22.35±1.62	00

Among the normal BMI, middle and late adolescent girls had both ‘satisfaction’ and ‘partial satisfaction’ group in Body Cathexis score. Whereas, overweight and underweight adolescents girls exhibited ‘partial satisfaction’ in Body cathexis score.

Table 5: Frequency Distribution of BMI vs Snacking Behaviour

BMI \ SNACKING	Middle Adolescent (n=112)			Late Adolescent (n=139)		
	Underweight (n=07)	Normal (n=87)	Overweight (n=18)	Underweight (n=14)	Normal (n=107)	Overweight (n=18)
	Value in Percent					
Satisfaction snacking habit	02 (28.57)	41 (47.13)	12(66.67)	03(21.43)	47 (43.93)	09(50)
Healthy sancking habit	05(71.43)	46(52.87)	06(33.33)	11(78.57)	60 (56.07)	09 (50)

About 66.67 percent of middle and late adolescent girls had satisfactory snacking habit in spite of being overweight. This may be due to the fact that they eat snacks more frequently [19, 20].

However, among the late adolescent who had healthy snacking habit 50 percent were overweight and 70 percent were underweight. This might be due to their metabolic disorder or pubertal hormonal disorder [21, 22].

Table 6: Distribution of Body Cathexis Scale v. s snacking behaviors

Snacking \ BCS	Middle Adolescence (n=112)		Late Adolescence (n=139)	
	Satisfactory snacking habits (n=61)	Healthy snacking habits (n=51)	Satisfactory snacking habits (n=79)	Healthy snacking habits (n=60)
Partially Satisfaction	49(80.33)	46(90.2)	71(89.87)	53(88.33)
Satisfaction	12(19.67)	05(9.80)	08(10.13)	07(11.67)

Majority (90.2%) from middle adolescents had ‘healthy snacking habits’ but their Body Cathexis score was ‘partial satisfaction’. This could be due to low self-esteem, peer and familial pressure, and social expectations about the ideal body image that are reinforced by the media [23-27].

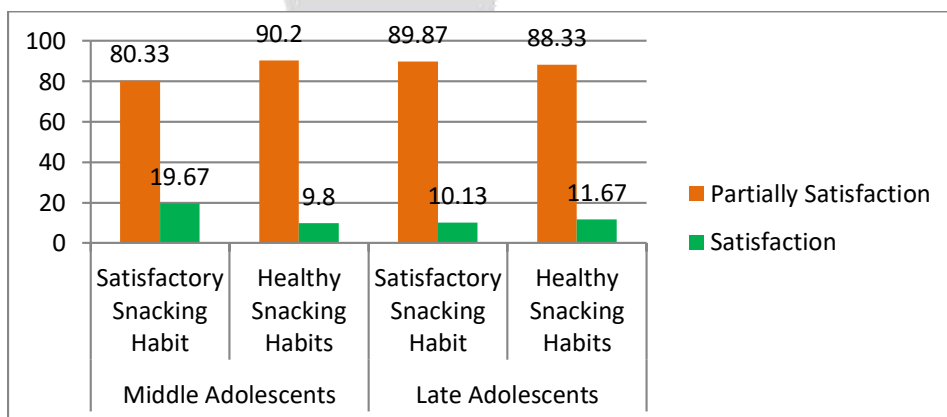


Figure 2: Distribution of Body Cathexis based on Snacking

4. CONCLUSION

Among the normal BMI, middle and late adolescent girls had both ‘satisfaction’ and ‘partial satisfaction’ in Body cathexis score. Whereas, the overweight and underweight adolescent girls exhibited ‘partial satisfaction’ in the Body cathexis score. These may be due to the comparison of their own bodies with slim characters portrayed in the media. Majority of the middle adolescent girls had ‘satisfactory snacking habits’ in spite of being overweight due to the fact that they eat snacks more frequently. Larger

number of middle adolescent had 'healthy snacking habits' but their Body cathexis Score was 'partial satisfaction'. This may be due to low self-esteem, social pressure, un-realistic beauty standards portrayed in media.

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