TPM Vol. 32, No. S1, 2025
ISSN: 1972-6325
https://www.tpmap.org/

EFFECTIVENESS OF ROLE PLAY ON KNOWLEDGE REGARDINGILLEFFECTOFJUNKFOODSAMONGADOL ESCENTINGOVERNMENT HIGHER SECONDARY SCHOOL AT KARAI KANCHIPURAM

MS.P. DHANALAKSHMIMS. A. HEMALATHA[1], MS. E. HEMALATHA[2], MS. P. HEMAPRIYA[3], DINESH KUMAR[4]
[1,2,3]ARULMIGU MEENAKSHSHI COLLEGE OF NURSING, MEENAKSHI ACADEMY OF HIGHER EDUCATION AND RESEARCH
[4]ASSISTANT PROFESSOR, DEPT. OF MEDICAL SURGICAL NURSING, ARULMIGU MEENAKSHSHI COLLEGE OF NURSING

INTRODUCTION

Food is one of the basic requirements of every human being for survival. while most people eat to live, others live to eat and love to address themselves as foodies. However, most fast or processed foods are not good for our stomachs and can make us sick. God gave food tothe denizens of the Earth to nourish and sustain them..Junkfooddefies this aim in that far from nourishing our bodies, it only fills them up with toxins that jeopardize our health, causing diseases like cancer, kidney trouble, liver problems, obesity, and various issues of the skin, besides other ailments. Fast food includes processed foods with preservatives, high salt and sugar content, and other additives to enhance their shelf life.

The term junk food was coined as a slang in the public interest in 1972 by Michael Jacobson,Directorofthe centerforscience,Washington.Whatmakesthesefoodstobecalledas junk food is that it contain high levels of refined sugar, white flour, trans-fat and poly saturated fat, salt, and numerous food additives such as monosodium glutamate and tartrazine; at the same time, it is lacking in proteins, vitamins, essential minerals, fiber, among other healthy attributes. These foods have little enzyme producing vitamins and minerals but contain high level f calories in their place. A food that is high in fat, sodium, and/or sugar and provides high calories yet useless in value is generally knoun as junk food. On the contrary, junk food is to carry, purchase and consume. There is an urgent need to educate the urban community on the aspects of healthy food habits and desired lifestyles to prevent overweight/obesity and its associated ill effects.

METHODOLOGY

Thetargetpopulationofthepresentstudywastheadolescent(13-19years)
The accessible population 30 adolescent in Government Higher Secondary School at Karai, Kanchipuram.
VARIABLESUNDERTHESTUDY
INDEPENDENTVARIABLE: Theindependentvariableofthepresentstudy
wasrole play
DEPENDENTVARIABLE: Thedependentvariableofthepresentstudywas knowledge regarding ill effect of junk foods.
SAMPLE
Samplemaybedefineasrepresentativeunitofatargetpopulation,whichistobe worked upon by researchers during their study. In other words, sample consists of a subset of units which comprise the population selected by investigators or researchers to participate in their research project.
Thesamplecompriseof30Adolescents.
SAMPLINGTECHNIQUE

- Samplingtechniqueistheprocessofselectingthestudysamplefortheresearch.
- Forthisstudytheresearchwilladopts,PurposiveSamplingTechnique

CRITERIAFOR THESELECTION SAMPLE
InclusionCriteria:
Adolescentwhowere,

1. agedbetween13to19years.
2. abletounderstandorEnglish.
3. boththegender.

ExclusionCriteria:
Adolescentswhowere, exposedtosimilarstudybefore. And notwillingtoparticipatethestudy.
SELECTIONOFINSTRUMENTSANDTOOLS:

TPM Vol. 32, No. S1, 2025
ISSN: 1972-6325
https://www.tpmap.org/

Open Access

The researcher had developed questionnaire after the review of literature "A Study to assess the effectiveness of role play on knowledge regarding ill effect of junk foods among adolescent in Government Higher Secondary School at Karai, Kanchipuram".
SECTION-AANDSECTION-B

SECTION- A: Demographical variables SECTION-B:KnowledgeQuestionnaire SECTION A
DEMOGRAPHICALVARIABLES

Demographical variables which includes age, gender, religion, place of residence, occupation of parents and previous knowledge of the adolescents.
KNOWLEDGEQUESTIONNARIE
Itcontaintwentymultiplechoosequestionstoregardingilleffectofjunkfoods.Correctanswer carries one mark and wrong answer carries zero mark. The possible maximum score is 20 and minimum score is 0.
SCORINGINTERPRETATION
LEVELOFKNOWLEDGE

S.NO	LEVELOFKNOWLEDGE	SCORE
1.	InadequateKnowledge	0-7
2.	ModerateadequateKnowledge	8-14
3.	AdequateKnowledge	15-20

RELIABILITY
The reliability was established by inter-rater method to assess the internal consistency of the tool. The score was r = 0.894. Hence the tool was reliable and considered for proceeding.
VALIDITY
Validity refer show well an instrument as measures what is in ten de d to
measure. The content of the instrument was validated by two experts in the field of nursing.
DATACOLLECTION PROCESS
The prior permission was obtained from the head of the institution. A separate room was arranged for the data collection. The samples were selected based oninclusion and exclusion criteria using a purposive sampling technique. Demographic variables were collected from the participants. The researcher assessed the pre test knowledge of the samples using a self structured questionnaire and providededucation regarding ill effects of junk food through role play. After seven days, a post test was conducted to assess the participants knowledge and evaluate the effectiveness of the role play .upon completion of data collection, statistical analysis was carried out.
PLANFORDATAANALYSIS
Data analysis enables the researcher to organize summarize evaluate interpret and communicate numerical information. Data analysis was done by using descriptive and inferential statistics.

RESULTS

Table:1 Frequencyandpercentagedistributionofadolescentsbasedondemographicvariables.
N=30

S.NO	DEMOGRAPLHIC VARIABLES	FREQUENCY (F)	PERCENTAGE (%)
1.	AgeinYears		
	a) 13Years Old	08	26.6%
	b) 14YearsOld	12	40%
	c) 15AndAbove	10	33.3%
2.	Gender		
	a) Male	15	50%
	b) Female	15	50%
3.	Placeofresidence		
	a) Urban	21	30%
	b) Rural	09	70%
5.	Religion		
	a) Hindu	19	63.3.%
	b) Christian	05	16.6%
	c) Muslim	03	10%
	d) Others	03	10%

6.	Typesoffamily a) NuclearFamily b) JointFamily c) ExtendFamily	 13 16 01	 43.3% 53.3% 3.3%
7.	EducationofFather a) SSLC b) HSC c) DegreeCourse d) Otherss	 09 04 08 09	 30% 13.3% 26.6% 30%
8.	EducationofMother a) SSLC b) HSC c) DegreeCourse d) Others	 10 05 02 08	 33.3% 16.6% 6.6% 26.6%
9.	OccupationofFather a) Dailywages b) Farmer c) Privateemployee d) Governmentemployee	 10 10 08 02	 33.3% 33.3% 26.6% 6.6%
10.	OccupationofMother a) Dailywages b) Homemaker c) Privateemployee d) Governmentemployee	 07 20 02 01	 23.3% 66.6% 6.6% 3.3%

The depicts frequency and percentage distribution of demographic variables among adolescent based on demographic variables. This table consists of Age, Place of residence, Religion, Types of Family, Education of Father, Education of Mother, Occupation of Father, Occupation of Mother. Showed that the percentage distribution of Adolescents according to this age group. 08(26.6%) were belongs to 13 Years Old, 12(40%)werebelongsto 14YearsOld,15(33.3%)werebelongsto 15Years.Containthe percentage distribution of adolescent according to this Gender.15(50%) were belongs to Male, 15(50%) were belongs to Female. Inferred percentage distribution of adolescents according to their Place of residence.21(70%) were belongs to Rural, 09(30%) were belongstoUrban.Depictspercentagedistributionofadolescentsaccordingtotheir

Religion.19(63.3%) were belongs to Hindu, 05(16.6%) were belongs to Christian, 03(10%) were belongs to Muslim, 3(10%) were belongs to Others. Consider the percentage distribution of adolescent according to their Types of Family.13(43.3%) were belongs to Nuclear Family, 16(53.3%) were belongs to Joint Family,01(3.3%) were belongs toExtend Family. Requires the percentage distribution of adolescents according to their Education of Father.9(30%) were belongs to SSLC, 04(13.3%) were belongs to HSC, 8(26.6%)werebelongstoDegree Course,9(30%) were belongs toothers.Requires the percentage distribution of adolescents according to their Education of Mother.10(33.3%) were belongs to SSLC, 5(16.6%) were belongs to HSC, 02(6.6%)were belongs to Degree Course, 08(26.6%) were belongs to others. Regarding the percentage distribution of adolescent according to their Occupation of Father.10(33.3%) were belongs to Daily wages, 10(33.3%) were belongs to Farmer, 08(26.6%) were belongs to Private employee, 02(6.6%) were belongs to Government employee. Ensure the percentage distribution of adolescents according to their Occupation of Mother.07(23.3%) were belongs to Daily wages, 20(66.6%) were belongs to Home maker, 02(6.6%) were belongs to Private employee, 01(3.3%) were belongs to Government employee.

Table 2: FrequencyandPercentagedistributionofPreandposttestlevelof knowledge regarding Ill Effect ofJunk Foods among adolescents.

S.NO	LEVELOF KOWLEDGE	PRETEST		POSTTEST	
		f	%	f	%
1.	Inadequateknowledge (0-7)	07	23.3%	4	13.4%
2.	Moderateadequate knowledge(8-14)	20	66.7%	8	26.6%
S3.	Adequateknowledge	03	10%	18	60%

The depicts frequency and percentage distribution of Ninth Standard Students according to the level of knowledge 10(60), were belongs to adequate, 76.6(26.6) were belongs to moderate adequate knowledge, 23.3(13.4) were belongs to inadequate knowledge.

Table 3: Comparison between pre-te stand post-test level of knowledge regarding ill effect of junk foods.

Descriptive statistics	Levelofknowledge(n=30)			t-value
	Pre-test	Post-test	Difference (post-pre)	
Mean	9.77	14.9	5.13	t=9.45 df=29 Significant
Standarddeviation	0.625	0.838	0.213	

The findings in the above table describes a comparison between the pre-test and post-test knowledge levels regarding ill effect of junk foods among 30 participants. The mean pre-test score was 9.9 with a standard deviation of 0.625, indicating a lower and more varied level of knowledgebeforetheintervention. Following the roleplay, thepost-test mean scoreincreased to 14.9, with a standard deviation of 0.838. This shows an improvement in knowledge and a slight decrease in variability among participants. The mean difference between the pre-test and post- test scores was 5.13. The calculated t-value was 9.45 with degrees of freedom (df) = 29,the critical t-value at $p < 0.05$ is ±2.009.Since the calculated t-value (9.45) is greater than the critical t-value (2.009), the result is highly significant. Hence H1 hypothesis is accepted. This suggests that the educational intervention was effective in improving the participants knowledge regarding the ill effect of junk foods.

Table 4:

S. NO	DEMOGRAPHIC VARIABLES	LEVELOFKNOWLEDGE						X^2 df
		INADEQUATE		MODERATELY ADEQUATE		ADEQUATE		
		F	%	F	%	F	%	
1.	AgeinYears a) 13Years Old	1	3.3	3	10	4	13.3	X^2=4.0938*

	b) 14Years Old c) 15Years Old	3 0	10 0	3 2	10 6.6	6 8	20 26.6	P=0.0430 df=2
2.	Gender a) Male b) Female	1 3	3 10	4 4	13.3 13.3	10 8	33.3 26.6	X^2=1.2222 p=0.2689 df=1
3.	Placeofresidence a) Rural b) Urban	3 1	10 3	7 1	23.3 3	11 07	36.6 23.3	X^2=1.8916 P= 0.1690 df=1
5.	Religion a) Hindu b) Christian c) Muslim d) Others	3 0 1 0	10 0 3.3 0	3 3 1 1	10 10 3.3 3.3	13 2 1 2	10 6.6 3.3 6.6	X^2=6.0147* p=0.0142 df=3
6.	Typesoffamily a) Nuclear Family b) JointFamily c) Extend Family	2 2 0	6.6 6.6 0	3 4 1	10 13.3 3.3	8 10 0	26.6 33.3 0	X^2=2.9006 p=0.0885 df=2
7.	EducationofFather a) SSLC b) HSC c) Degree Course d) Others	1 1 2 0	3.3 3.3 6.6 0	4 1 1 2	13.3 3.3 3.3 6.6	4 2 5 7	13.3 6.6 16.6 23.3	X^2=5.1101* P=0.028 df=3
8.	Educationof Mother a) SSLC b) HSC	3	10	2	6.6	5	16.6	X^2=6.5833*

	c) Degree Course d) Others	1 0 0	3.3 0 0	2 0 4	6.6 0 13.3	2 2 9	6.6 6.6 30	P=0.0103 df=3
9.	Occupationof Father a) Dailywages b) Farmer c) Private employee d) Government employee	0 1 2 1	0 3.3 6.6 3.3	3 5 0 0	10 16.6 0 0	7 4 6 1	23.3 13.3 20 3.3	X^2= 10.1667* P=0.0014 df=3
10.	Occupationof Mother a) Dailywages	1	3.3	1	3.3	5	16.6	X^2=9.1637*

	b)	c) Home maker d) Private employee e) Governme nt employee	2 0 1	6.6 0 3.3	7 0 0	23.3 0 0	11 2 0	36.6 6.6 0	P=0.0025 df=3

*P<0.05,significantand*P<0.01and*P<0.001,HighlySignificant.

Showed that there was significant associated between Level of Knowledge and selected Demographic Variables, Age, Religion, Education of Father, Education of Mother, Occupation ofFather, Occupation of Mother at p<0.05 level, Henceresearch hypothesis H2was partially Significant.

DISCUSSION

Dataanalysisshowsthatfrequencyandpercentagedistributionofdemographicvariables among School Students based on demographic variables. This table consists of Age, Gender, TypesofFamily,Placeof residence,Religion,Educationof Father,Educationof Mother, Occupation of Father, Occupation of Mother.
Data analysis shows that frequency and percentagedistribution of demographicvariables amongSchoolStudents accordingtotheirlevelofknowledge10(60%)were belongstoadequate, 76.6(26.6%) were belongs to moderate adequate knowledge, 23.3(13.4%) were belongs to inadequate knowledge.
Comparison between pre-test and post-test level of knowledge regarding ill effect of junk foods.
The findings revealed that the pre-test and post-test knowledge levels regarding ill effect of junk foods among 30 participants. The mean pre-test score was 9.9 with a standard deviation of 0.625, indicating a lower and more varied level of knowledge before the intervention. Following the role play, the post-test mean score increased to 14.9, with a standard deviation of 0.838. This shows an improvement in knowledge and a slight decrease in

variability among participants. The mean difference between the pre-test and post-test scores was 5.13. The calculatedt-valuewas9.45withdegreesoffreedom(df)=29,thecriticalt-valueatp<0.05is ±2.009.Sincethecalculatedt-value(9.45)isgreaterthanthecritical t-value(2.009),theresultis highly significant. Hence H1 hypothesis is accepted. This suggests that the educational intervention was effective in improving the participants knowledge regarding the ill effect ofjunk foods.

Data analysis showed that there was significant associated between Level of Knowledge and selected Demographic variables, age and location of residence at p<0.05 level, Hence research hypothesis H 2Accepted.

The findings of the present study are supported by several national and international studies that emphasize the importance of structured teaching programme in improvingknowledge about ill effect of junk foods among adolescents.

Jeya Beulah (2023)) was conducted the comparative study to assess the knowledge and practice regarding junk food and its harmful effects on lifestyle among adolescents in urban and rural schools at Deoria district, Uttar Pradesh. Comparative descriptive approach was adopted. Total 530 youngsters of selected schools from urban and rural area. Samples were chosen through convenient sampling technique. The revealed that self-administered questionnaire majority (62%) had good knowledge, 17% had excellent knowledge, 16% had moderate knowledge, and only 5% had poor knowledge in urban adolescents whereas adolescents from rural school 49% had moderate knowledge, 36% had well and 9% had poor knowledge.

In the study, it was observed that (62.2%) eat junk food during snack time. Students staying with friends (35.3%) consumed more junk food compared to the onesstayingwithfamily(13.8%).Themostcommonreasonsfor junkfoodconsumptionwereits good taste (77.6%) and (68.1%) convenience. It is observed that maximum consumption of junk food is seen when meeting their friends (70.7%) and on special occasions (61.2%). French fries (69.8%) were the most common junk food consumed although (76.7%) felt that junk food is unhealthy. The qualitative interview also supported the findings that the most common reasons for junk food consumption were craving, inexpensive, taste, and poor taste of hostel food.

The findings revealed a statistically significant association between the level of knowledgeregarding ill effect of junk foods and selected demographic variables such as age at p<0.05, while gender, place of residence, religion, types of family, education of father,educationofmother,occupationoffather,occupationofmothershowedahighly significant association at p<0.01. The indicates that these factors had on impact on the knowledge level of adolescents. Hence the research hypothesis H 2 was partially accepted.

V.Murugesan et.al., (2024) was conducted the study “Impact on junk food healthThe findings of the study reveal a significant correlation among BMI, junk food frequency, and physical activity and awareness. Consequently, it is imperative to organize nutrition education programs in colleges and schools to prevent the younger generation from developing an addiction to junk food. This preventive measure is crucial in averting non-communicable diseases such as obesity, diabetes, cardiovascular diseases, and more.

Aumrin fathima et.al., (2024) was conducted the study of cross sectional junk food consumption among children adolescents in rural and urban service areas of a tertiary care hospital puducherry. The most common junk food, fast food, instant food, and street food eaten by children and adolescents were chocolate and chips, samosa, noodles, and golgappaa/ pani puri, respectively. Junk food consumption was higher in children and urban compared to adolescents and rural, respectively. The literate father and unemployed mother were associated with increased. Students should be advised to avoid eating while viewing a smart phone/laptop/television. If the school does not offera nutritious mid-day meal, students should bring lunch boxes filled with healthful foods. In a form al system, all school sshoulden courage balanced diet sand drawa t tention to the adverse effects of junk food. Parents should encourage children to practice good eating habitsthemselvesandact asrolemodelsfortheir kidsto createa homeenvironmentthat isnutrition-consciousandsupportive.Governmentshouldtaketheinitiativetosubstitute healthy raw materials in junk food packets (for e.g. substituting wheat instead of Maida inbiscuits)andfortificationinjunkfoodwithhealthytipslabeling(e.g. addingfibre rich contentinnoodles)andpreventsalesofharmfuladdictive-junkfoodsinthepremise of schools.

CONCLUSION

The results that shows to revealed a significant and level of knowledge was increased regarding ill effect of junk foods among adolescents.

REFERENCES

1. 1. Cohen DA, Ghosh-Dastidar B, Beckman R. Adolescent girls' most common source of junk food away from home. Health Place 2012; Vol. 18(5).
2. Darshan sohi:“DV A textbook of Nutrition”: 2ndedition 2009; S VIKAS and co publisher's
3. Darshan Sohi; “A comprehensive textbook of therapeutic diets for BSc Nursing Students”; 2nd edition 2018; Jaypee brothers medical publishers.

4. Dharmapuri R. et al. Dietary habits and effect of two different educational tools on nutrition knowledge of school going adolescent girls in Hyderabad, India. European Journal of Clinical Nutrition 2007; Vol. 61.
5. Dingman DA, SchulzMR, Wyrick DL, BibeauDL, Gupta SN. Factors related to the number of fast food meals obtained by college meal plan students. Journal of American College Health2014; Vol. 62(8).
6. Dr. M. Swaminthan; “Advanced textbook on food and nutrition volume 2”; 2nd edition 2012;The Bangalore printing and publishing co.,ltd;
7. Goyal JP, Kumar N, Parmar I, Shah VB, Patel B. Determinants of overweight and obesity in affluent adolescent in Surat city, South Gujarat region, India. Indian Journal of Community Medicine 2011; Vol.
8. Hasbarslalfood andnutrition(medical nursingandalliedsciences);2ndedition2014; CBS publications.
9. Ibrahim U, Ismail UF, Mohammed M. Nutritional Knowledge, Attitudes and Junk Food Consumption Habits among Students of Abubakar Tatari Polytechnic (ATAP) Bauchi. International Journal of Scientific and Engineering Research 2014; Vol. 5(12).
10. James C, Gold M. The Salted food Addiction Hypothesis may explain overeatingand the obesity endemic. Medical Hypothesis 2009,Aug; Vol. 73.
11. L.kathleen Mahan," krause's Foud, Nutrition, and diet therapy”;11thedition 2000; Elsevier publications.
12. RovnerAJ,NanselTR,WangJ,lannottiRJ.Foodsoldinschoolvendingmachinesis associated with overall student dietary intake. Journal of Adolescent Health 2011; Vol. 48(1).
13. Suresh K Sharma; “Nursing research and statistics”; 4th edition 2023; Elsevier publications.
14. Sharma V. Adolescent knowledge regarding harmful effects of junk food. IOSR Journal of Nursing and Health Sciences 2013; Vol. 1(6).
15. ven katonman;"Nutrition and biohemistry for Nurses”; food Edition 2011,Elsevier publications.